

DAWSON
ON
MARRIAGE &c

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AN
ESSAY ON MARRIAGE;
BRING
A MICROSCOPIC INVESTIGATION
INTO
ITS PHYSIOLOGICAL AND PHYSICAL RELATIONS;
WITH
Observations
ON
THE NATURE, CAUSES, AND TREATMENT
OF
SPERMATORRHŒA,
AND THE VARIOUS DISORDERS OF THE PROCREATIVE
SYSTEM IN MEN;
Illustrated by Cases.

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FOR THE TREATMENT OF CALCULUS, DIABETES, AND THE VARIOUS  
DISEASES OF THE GENITO-URINARY SYSTEM.  
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P R E F A C E.

AMONG the many works so constantly issuing from the medical press, replete with the most ingenious speculations, and enriched with principles founded upon the closest and most attentive observations, it unaccountably happens, that none have been specially devoted to the subject which constitutes the principal matter of the following pages. Indeed, it would seem not very inconsistent to infer that, in reality, no such diseases ever existed, as they could hardly have escaped the inquisitive vigilance of modern medicine. Strange, however, as this may appear, such diseases not only prevail, but to an extent hardly to be credited, unless by those who have devoted themselves to inquiries upon the subject. It is true that Impotency is noticed in systematic works upon the practice of physic, but in so vague a manner, and with so little precision, that we rise from the perusal as little instructed as when we first sat down. "Indeed," says Curling, "the little information we possess respecting it is chiefly to be found under the head of impotency in works on medical jurisprudence, in which it is cursorily considered, principally in relation to points of medico-

legal interest, and scarcely at all in reference to practice.”*

In a practical point of view, the sources of information in this country may be regarded as an absolute nonentity, for I hardly know of any, except what his own experience may present to individual practitioners. Nor has this dearth been passed over without heed or complaint. Dr. Smyth, in a paper on Impotency, published in the *Lancet*, August 28, 1841, observes :—“ It is a subject not less interesting to the moralist than to the medical practitioner ; and it really is surprising to see that nothing worthy of notice is to be found on a matter so important in the various writings of standard authors. This circumstance appears remarkable and unaccountable, when experience convinces us that sexual weaknesses and imperfections, either hereditary or acquired, constitute the great majority, perhaps nine-tenths of the causes of nervousness, mental imbecility and derangement. How then are we to account for a fact like this?—a fact of such frequent occurrence, and so highly philosophic and instructive, as it undoubtedly is, having obtained so little attention. Can a general feeling of ill-exercised tenderness towards the depraved habits of most of the pitiable sufferers have operated in preventing the matter from having been duly investigated, and candidly avowed and discussed, or has it resulted from ignorance? The former we are disposed to think can scarcely have been the case; for with the medical practitioner, less frequently perhaps than with any other professionalist, from the confidence so readily reposed in his calling, does delicacy or prudery supersede utility.”

* Curling on Disease of the Testis, page 39.

Perhaps the neglect with which practitioners have treated the subject of Impotency may be explained by the fact, that unless in the case of physical defects, we had no means of forming the diagnosis of such cases, nor were we capable of discriminating them from the mere common derangements of health. It is to the MICROSCOPE that we are chiefly indebted for the new light thrown upon this disorder. The discovery of the *spermatozoa* naturally led to the inquiry, what was the object of their existence in the spermatic fluid? Their existence in the seminal secretions of all animals proved that their presence was essential, and philosophy soon cleared up the mystery. Hence, the presence of these animalcules in the urethral discharges, and in the urine, furnished means for the diagnosis of this kind, hitherto one of the most obscure and intricate forms, of Impotency.

There are other forms of this disorder, caused by genital derangements, resulting from excesses and other kinds of imprudence. In many of these, I found the epididymis in a peculiar condition,—indurated, knotted, and tuberculated. I do not find this condition in connexion with Impotency noticed by any of the numerous authorities which I have consulted. When the epididymis is in this state, I have found nothing to effect the cure but the bichloride of mercury. All our efforts will prove futile without this medicine, which, unless in some inveterate cases, acts almost like a specific.

A residence for some time upon the Continent, and the kindness of the surgeons in charge of the large hospitals in France and in Germany, afforded me oppor-

tunities of inquiry, which I must have sought for in vain at any of the establishments in this country. The facilities, and the means of such investigation, are less repugnant to the habits and customs abroad than at home. Notwithstanding, however, the numerous and valuable opportunities afforded me on the Continent, I feel that I owe it to common justice, were I actuated by no more worthy feeling, to express my sense of the obligations I am under to my friend and colleague, Dr. Venables, and to Mr. Quekett, Conservator of the Museum of the Royal College of Surgeons, for assisting me in many of my microscopical researches.

NO. 1, MOORGATE, FINSBURY SQUARE,
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I M P O T E N C Y ,

&c., &c.

INTRODUCTORY REMARKS.

THE object of this essay is to shew that many of the most important and distressing diseases attacking the male sex, are to be referred, not so directly to the organs themselves, the functions of which are seemingly deranged; but to others, differing materially in both function and structure. At first sight, perhaps, it would hardly be imagined that the genito-urinary system in man, could exert so extended an influence over the viscera of the body, as to produce almost every imaginable derangement. Yet I think I shall be able to prove that many diseases,—insanity, and a host of similar affections no less distressing, arise from this cause, escaping detection, until they have acquired an uncontrollable ascendancy. The casual observer, who devotes the whole of his attention to the more obvious phenomena—who merely sees in

apoplexy, epilepsy, &c., the types of certain cerebral derangements; in apathy and indolence, a disordered condition of the nervous system—will, of course, regard and treat such diseases as primary affections, nor ever once imagine that all the phenomena may spring from a very different source, and which, if investigated and controlled at first, might have laid the foundation of a good constitution and permanent restoration to health. But deplorable indeed is the condition of him, who in his maddened career, who in his ungovernable indulgence, delivers himself up the victim of unrestrained sensuality, and surrenders himself to the enervating influence of unnatural gratification.

It has frequently fallen to my lot to see persons at an age which may be considered the prime of life, the period of the fullest health and vigour—the feeble and decrepid types of a premature decay, embittered too by all the agonizing effects of the utmost bodily infirmity and mental imbecility. Surely the condition of him, whose mental inability, at thirty or five and thirty years of age, rescues him from those useless feelings of anxiety and remorse, which a survey of by-gone days would be so eminently calculated to excite, must be happy compared with that of him who, unfortunately for himself, still retains a higher degree of mental energy. There is not, perhaps, in the whole category of pathology, a more

painful subject for reflection, or one more disagreeable for discussion, than the condition of these miserable votaries of solitary sensuality; and indeed, nothing but the hope of rescuing some of those, who have not yet irrecoverably contaminated their constitution, from the dangers with which they are threatened, or of preventing those, who have not yet exposed themselves, from braving the dangers which they contemplate—nothing, I repeat, but the hope of effecting some reformation amongst a class whose pernicious habits so frequently come under my review—could have reconciled me to publicity upon so painful a subject.

Not that I, by any means, intend to assert, that every case of impotency, or of premature decay, originates in improper indulgence. On the contrary, it has been my lot to witness many instances referable to causes, in the exciting of which the unfortunate sufferer himself had no participation. Such, indeed, more especially merit, if all cannot equally claim, our sympathy and our commiseration. Many, however, it is to be regretted, either from feelings of delicacy or from want of resolution—often too, from mistaken notions as to the real character, and the undermining nature of their disorder—sapping as it were the very foundations of health and vigour—neglect the disease until it has attained a frightful, if not altogether incurable, ascendancy.

My attention had been directed, at an early period of my professional career, to the nature of this affection, and to the changes superinduced in the structure of some of the more important parts of the genital apparatus. Although in some degree acquainted with the symptoms and character of this affection, with its train of miserable associations, yet it was not till after a sojourn at some of the Continental schools, particularly at Paris and in Germany, that I became more intimately acquainted with all the phenomena. The hospital presented a hideous picture—intolerable suffering, intense anxiety, complete despondency, the utmost bodily infirmity, and not unfrequently mental imbecility, the emblems of a wretched semi-vitality. It soon fell to the lot of the dead-house to reveal the effects, upon the seminal organs, of incessant exposure to unnatural excitement. As a sort of representation of the effects of illicit indulgence upon the health generally, I may instance the following case:—

CASE I.—One of my earliest friends, a gentleman endowed with great natural talents, strong sensible mind, and to all appearance possessed of great mental vigour, for some years had been suffering from an incessant discharge from the urethra, so obstinate that it resisted all the means adopted for its removal. He also

suffered from pains of an anomalous character in different parts of the body; and, notwithstanding very active treatment, no permanent benefit was obtained. About this period I left England, and consequently lost sight of this gentleman for nearly six years. He had, however, long ere this, evinced an aversion to correspondence.

A medical gentleman in practice in the neighbourhood where my friend resided, being in London about eighteen months ago, communicated to me the following particulars:—

He stated that he had been consulted by this gentleman, who complained that he then had lost all desire whatever for sexual intercourse, which he attributed to some person having removed the vital part of the testicle, while he was under the influence of mesmerism! Not only the improbability, but also the absolute impossibility of such an occurrence was explained, and urged upon him; but no further investigation appears to have been instituted. Being in the country a few weeks ago, I accidentally met this gentleman's brother, from whom I learned, that some few months after the occurrence above detailed, symptoms of insanity became much more evident. During the first twelve months he was kept under the superintendence of his friends; but, the malady increasing, it ultimately became necessary to place him in a lunatic asylum, where, from everything I

can learn, I fear he will have to remain for the rest of his days. This case made a very strong impression upon my mind—one of my earliest associates, of an active vigorous mind, robust health, not the slightest apparent tendency to any form, or even degree of mental alienation—in a few short years the inmate of a lunatic asylum. The mind—"that grand prerogative of man"—alienated and destroyed; my earliest acquaintance—the friend of my youth—the inmate of a lunatic asylum; a living, certainly, but senseless mass of clay!

From what I have seen, I cannot help feeling that this case is an instance of the baneful influence of (unnaturally induced) serious disorders of the genital system upon the mind; and that, had such a view been taken at the commencement, and the case been treated accordingly, the melancholy catastrophe might have been averted. Indeed, cases of this sort require great attention, and close watching, to avert future results; and I think I shall be able to show, or at least to make it appear probable, that the majority of young men who commit suicide, commit the rash act while actually suffering from disease of this character.

SYMPTOMS.

The symptoms, of so formidable a disease as the one about to be considered, bid defiance to anything like classification or nosological arrangement. Thus, sometimes there is general nervousness; sometimes the most violent palpitation of the heart from the slightest mental emotion, presents the principal feature. In the more obvious phenomena, pulmonic affections, gradually increasing in severity, lead to the idea that the patient is going into a decline; and, indeed, this not unfrequently proves to be the case, such patients afterwards dying of regular consumption. Even the digestive organs often become involved; and jaundice, flatulence, loathing, with an anxious, haggard, expression of countenance, betray the melancholy condition.

There is, however, always one constant attendant, and that is, a disordered condition of the genito-urinary system. If this be inquired into, we shall find evidences sufficient to satisfy us of the nature of the complaint. A discharge from the urethra of a thin watery fluid, will almost always be observed, which will be increased in quantity after a copious stool: the desire for sexual indulgence gradually diminishing. The linen in these cases is almost always stained, so as to resemble in appearance somewhat that produced by gonorrhœa. But the stain is whiter, and more like that from diluted albumen or white of egg. Examined by the microscope, the seminal

character of the fluid is placed beyond the possibility of doubt. It is a fact, well known to physiologists, that the semen in the male abounds in minute animalcules, named "*spermatozoa*," the shape and active movements of which the microscope alone can disclose to our view. They present the appearance of a sort of flattened ellipse, terminating in a kind of thread-like spiral tail. The oval part is perfectly transparent. They measure in length about one-fiftieth of a line. In the same fluid are seen a number of granular colourless corpuscles of a roundish form. They vary in number, but are much less numerous than the spermatozoa. The whole are suspended in a colourless, clear, transparent fluid, termed "*liquor seminis*." In cases of the description under consideration, they are seen on the linen, and also constantly in the urine, in which it is asserted by Wagner, they are never seen when that fluid is in a healthy state. As illustrating the advantage of attending to these matters, I may adduce the following case:—

CASE II.—The friends of a gentleman preparing for one of the learned professions, consulted me respecting the state of his mind. They observed that his memory had become much impaired, and his intellects much affected. He had latterly evinced a distaste for all those amusements which he formerly enjoyed, and what was still more strange, he had taken an utter dislike to the fair

sex! He repeatedly declared that he envied the man who cleaned his boots, and wished it had fallen to his lot to be the servant. He distorted the most trifling incidents, and magnified to the utmost every disappointment or vexation, however trifling in its nature. He became morose in his temper; his disposition suspicious; a haggard and sickly appearance; a wild vacant look, which, together with all the marks of a completely broken down constitution, induced his friends to think seriously of placing him under some restraint, and it was at this period that I was applied to.

I was informed that, in consequence of the symptoms from which he suffered, at one time resembling those of an affection of the heart, at another of the lungs, the stomach, the head, &c., he had undergone the varied routine of treatment for these different disorders, without, at the end of several months, any permanent benefit. Upon inquiry, I learned that for some time past, stains, of a peculiar description, had been constantly observed upon the body linen which he had worn; and his friends looked upon this as the effect of some illicit intercourse which, preying upon his mind, they apprehended might be the true cause of his mental state and bodily infirmity. On examination, I found the urine remarkably pale; specific gravity 1.009, and its state in every respect, very abnormal. But the most remarkable appearance was that of spermatozoa; when a portion was transferred to

the field of the microscope they were seen in a sort of thin weyish looking fluid; they were also found in the stains upon the linen, but very few of them in a perfect state, the tails of most of them being broken off.

Being thus possessed of the nature of the case, and the real cause of this gentleman's melancholy condition, I told his friends that I entertained some hopes he might be cured; but they had been so often told the same thing, and so often disappointed, that they were unwilling to enter upon any schemes, as they termed it, looking upon an asylum as the only suitable refuge. However, upon a somewhat more candid explanation their reluctance at last gave way.

Upon an interview with the patient himself, I declared to him my conviction, that if he steadily adhered to my instructions, he would ultimately regain his health and strength. I then told him that I had ascertained the real cause of all his illness, and delicately hinted to him my suspicions of its nature; namely, excessive indulgence in a solitary vice. At this, however, he was very indignant; protested most solemnly that he had never indulged in any practice of the sort; and denied that he had ever done any thing capable of bringing on disease of such a description. I urged, however, the unerring nature of my investigation, announced the appearance of the spermatozoa in his urine—an infallible proof, as these animalcules were never seen in natural urine; and lastly,

I urged the stains observed on his linen, and the evidence of the presence of those animalcules in a mutilated state in the fluid of these stains; that these facts left no room whatever to doubt the nature and cause of the debility from which he was suffering. It was ultimately arranged that he should be placed under my care.

I commenced the treatment of this case by administering sedatives to allay irritation, and steel to give tone to the general system. I cauterized the urethra in the manner recommended by Professor Lallemand of Montpellier, and described in another place, which was attended with the most surprising success. A discharge which invariably followed the emptying of the bladder or the evacuation of the bowels, as well as the oozing from the urethra itself, after a short time began to give way, and ultimately disappeared. The general health greatly improved, and was completely restored in about five months, when he left town to resume his studies at Cambridge.

After the lapse of several months, this gentleman again consulted me, of his own accord, stating that some of his former symptoms had returned. The treatment formerly pursued was again adopted, but without the same success; and at last I began to suspect that he was again pursuing his former vicious habits. I now directed the *unguent. antimon. potassio-tartrat.* to be rubbed on the

penis, till the usual eruption was brought out; the irritation so excited prevented indulgence in his former bad habits, the part being so sore that he could scarcely endure the slightest touch. The use of the ointment, so as to keep up the necessary irritation, was continued for about six weeks, during which period his general health greatly improved, the discharge from the urethra ceased, all the bad symptoms vanished, and his health remained completely re-established for a considerable time. Fearing, however, that he might again abandon himself to his former practices, I strongly urged marriage to him, observing that he would thus substitute a natural excitement for a most unnatural, pernicious, and destructive indulgence. He fortunately followed my advice and got married, and I have every reason to believe that his lady is at this very moment in the way "that ladies wish to be who love their lords;" and farther, that the gentleman himself is in excellent health.

This patient since confessed to me, what nothing could induce him to admit before, that my view of the nature and cause of his disease was perfectly correct. That he had so indulged and so addicted himself to masturbation, that he found it utterly impossible to resist the temptation, though fully sensible and thoroughly convinced of the ruin which he was entailing upon his own constitution. He assured me that he more than once

contemplated suicide.—This case is interesting, as shewing the ascendancy which bad habits sometimes acquire over the resolution. Such patients conceal their propensities from the shame and disgrace to which it exposes them. The above gentleman would not confess nor yet abandon his mal-practices. The rubbing in of the *ung. antim. potassio-tart.* upon the penis is one of the most effectual checks, and it is astonishing how the health improves so long as the irritation be kept up; but the great difficulty is to get the parties to persevere. They readily try the ointment at first, but it is difficult to induce them to repeat it.

Sometimes, especially in older subjects, this disease terminates fatally, bringing on the symptoms of apoplexy, or some affection of the brain, although upon dissection afterwards, there is no apparent derangement to be found in the head. The following case will illustrate the fatal effects of unnatural indulgence:—

CASE III.—In June, 1832, I was sent for to visit a gentleman residing in one of the northern counties of England, and who, as it was supposed, was suffering from an affection of the brain. Coma, however, had set in before I arrived, and he died in a few hours after. From his medical attendant I received the following history:—

For two years before his death, the health of this

patient, which had been declining for some time previous even to that period, had been giving way rapidly, and was nearly broken up. He had a discharge from the urethra, which was much increased in quantity whenever he passed urine or a motion; total *anaphrodisia*; with a haggard, pale, and peculiar expression of countenance, which, with several other circumstances related, induced me to suspect the presence of the disease under consideration, and to look upon the affection of the head as a secondary and not the primary disorder. I cannot state the condition of the brain, nor indeed of any other of the internal organs, as the friends would not upon any terms permit a post mortem examination; which, had they allowed, I feel satisfied that the genito-urinary system would have presented the most marked morbid appearances. He had been taking copaiba, cubebs, also a variety of diuretics and astringents, as well as using injections for the urethral discharge, though without any benefit; for, as far as I could learn, the urethral discharge seemed to have engrossed all the therapeutical attention. But what I look upon as the most certain characteristic of his condition is, that having obtained a small quantity of the discharge from the urethra upon a glass slide, on placing it in the field of the microscope it was observed to contain spermatozoa. I unfortunately could not obtain any of this patient's urine.

The influence of this disease upon the functions, and probably the organic condition of the brain, is well attested. Nor is it the brain alone that becomes involved. Lallemand states that it was from the number of patients who consulted him for supposed organic affections that his mind was more particularly directed to the study of these pollutions. The organic affections, however, at the commencement have not completely established themselves ; they exist only in appearance, or rather as it were, embryo. The symptomatic phenomena are the results of a sort of sympathetic excitement, the immediate forerunner of irritation, which once established in an organ, and which left uncontrolled in its progress, at last invades the structure ; *nec sistit gradum*, nor stops its progress, till it has sapped the foundation, uprooted every stone, and reduced the building to a heap of ruins.

To sum up in a few words: The symptoms of this disease appear, at no definite period, but at times, varying in length, according to circumstances, after the continued operation of some of the causes hereafter to be enumerated. The symptoms at first are apparently general ; the strength begins to fail, and the constitution seems to be breaking up, ; the patient feels neither very ill, nor yet in a state of health satisfactory to himself, and still he knows not of what to complain most. Nor is it his bodily strength alone that seems affected ; his

mind appears to be involved in the general debility. He either is extremely irritable, apprehensive, morose, or suspicious; or he becomes unhappy, melancholy, despondent, avoiding all sorts of social intercourse, even that of his most intimate friends and relations. He shuns every acquaintance, seeks solitude and retirement, and in a sort of vacant mental abstraction, broods over—he knows not what.

During all these various revolutions in the general system, corresponding changes in the general appearance and countenance gradually but steadily unfold themselves. The figure becomes altered, the patient emaciates, the weakness becomes evident in the stoop: the low and rounded shoulders falling in upon the chest; the pale sharpened features, the haggard look, but too clearly denounce the hidden mischief. Every intimate perceives the change—many remark upon it, to the serious annoyance of him most interested, the actual sufferer. But, notwithstanding, inquire the cause of all this—investigate the health: the appetite is as usual, there may be slight thirst, the tongue perhaps a little coated in the morning; a slight feverish condition not constant, but appearing only occasionally upon the application of some slight cause, as exposure, sitting up late, &c.; but no other assignable reason for apparently such serious inroads upon the health. This gradual decay,

proceeding from no apparent cause, goes on, lamented indeed, but unexplained; till at last some, more sapient than their neighbours, discover that the poor sufferer "is going fast into a decline." Now the grand discovery is made, the secret revealed, the mystery cleared up, and all become resigned to a calamity they feel they cannot avert.

But now new phenomena present themselves to swell up the list, and aggravate the bitter category of human ills. Nervous trepidations of a formidable character render the situation of the patient very precarious; or perhaps he is suddenly seized with the most violent palpitations of the heart, at first appearing only at intervals, but soon repeating their visits with fearful frequency; a slight cough, with a sense of constriction in the chest, precedes the general breaking up. This cough (a cold from some slight exposure), soon to disappear, seems disposed, however, to be obstinate, and to retain possession. Nay, it increases in violence; it is more troublesome; it harasses both day and night, and phlegm makes its appearance, at first frothy and mucous, but afterwards becoming greenish, or yellowish—in a word purulent. Sometimes blood appears; either a true hæmoptoe, or a mere sanguineous exudation colouring the sputa.

But, perhaps, as more frequently happens, signs of

cerebral derangement show themselves. Head-ache, periodical at first, but afterwards becoming a sense of tightness, with obtuse pains. Paroxysms of delirium succeed, and these of the true maniacal character, ultimately terminating in confirmed, perhaps immediate insanity. The patient, suffering from some one or more of these symptoms, yields at once overwhelmed by their violence and severity; or ekes out a lingering, miserable existence, and ultimately sinks into the tomb, the victim—perhaps the unconscious victim—of his own vices and his own follies; carrying with him unrevealed the secret cause of a premature descent into the grave.

Such is not unfrequently the course of this disease; the unsuspecting friends, wholly unconscious on the one hand, and the sufferer's own sense of shame on the other, contribute to preserve a secret, the timely disclosure of which might have been attended with widely different and more happy results. But, having surrendered himself entirely to a most pernicious habit, till it had gained such an ascendancy that anything like self-control, and resistance to the fatal and degrading propensity, were no longer within his power, the votary of solitary vice at last wholly abandons himself, and ashamed to acknowledge his follies, finds in an early tomb the only refuge from his sufferings—the only hope—the last, though sad and melancholy prospect of burying at once his reflec-

tions and his remorse. But, perhaps, it is now high time to draw the veil over these mysteries, and to drop the curtain on scenes, the farther contemplation of which can only tend to excite the most painful reflections, without any prospect of utility or advantage.

CAUSES.—The causes, like those of most other diseases, may be reduced to two kinds: those which predispose to, and those which excite the morbid condition, from whence all the diseased phenomena emanate. The first act upon the system, inducing a susceptibility to the influence of the second, which susceptibility is often named *predisposition*. The exciting causes act either upon the system at large, or upon particular parts of it, and by their influence, or reaction upon the organs more particularly affected, induce the diseased condition. Such comprehends what may be named the doctrine of morbid sympathy. But these two classes of causes may act directly, and without any intermedium, upon the diseased part; thus, for instance, acrids will produce by their immediate contact diseased phenomena; and the contact may be a mere mechanical movement or application; the irritants may pass through the circulation and reach the organs, the structure or functions of which they affect. The effects of cantharides, administered internally, upon the urinary organs, may be cited as an illustration.

The causes of impotency are varied, and present almost insurmountable difficulties to anything like methodical classification. Physical defects may be either congenital or acquired; or they may result from injuries or mutilation. A physical defect, such as a total or complete non-development, obliteration, organic changes of parts essential to the procreative faculty, &c., would prove a cause of impotency, though not of absolute sterility. Some of them may be congenital, but some of them must have been, of necessity, acquired. The potency of the male, it is now well ascertained, depends essentially upon the spermatozoa already alluded to, and if they be absent, no physical perfection can compensate their loss. Persons have been known, who have passed a life—and even a long life—without evincing, or probably feeling the slightest desire: what can be the cause of this unnatural insusceptibility? Be this what it may, Sir Astley Cooper has described the condition of such frigid mortals in clear and perspicuous, though highly poetical language:—"To such persons a Venus might display her charms, and on such her son might exhaust his quiver in vain. No genial spring is here, no blooming summer or fruitful autumn; but all is winter—a dreary, desolate, and barren winter—in which the springs of life are frozen up, and the animal propensities destroyed."

But it is not to original defects that I wish so much to direct attention, but rather to causes which are more frequent, and which being more under control, are more properly the objects of therapeutical investigation. In this point of view, we may set down, as one of the more important, an excessive indulgence in sexual intercourse. It would be difficult strictly to define excessive indulgence; thus what would prove the very height of excess to one person, might prove to be but a moderate excitement to another. Celsus tells us the sexual appetite ought to be indulged, using only moderation. Moderate, it invigorates the body, but in excess, it relaxes it; his words are:—"Concubitus vero neque nimis concupiscendus, neque nimis pertimescendus est, rarus corpus excitat; frequens, solvit."* But he further tells us, that excess does not depend upon the repetition or frequency, but upon the state of the constitution. "Cum autem," he observes, "frequens non numero sit, sed natura, ratione status, et corporis, scire licet, eum non inutilem esse, quem corporis neque languor, neque dolor sequitur."†

I must confess, however, that I regard excess to consist more in the circumstances of a very promiscuous intercourse, than in what abstractedly might be considered

* Cels. De Medicina Lib. 1. Cap i.

† Ibid.

such. A promiscuous intercourse debilitates much more speedily, and debilitates much more effectually than fidelity to one and the same person, however frequent the gratification. We know, that with the other sex, barrenness, or if fertility exists, that it remains dormant and inactive, is the almost inseparable concomitant of promiscuous indulgence. Hence we find that women of a certain class seldom conceive. Even young females, who engage, at their first set out, in general and unrestricted prostitution, prove sterile during the period of indulgence; yet there is reason to believe that in these cases the procreative faculty is rather suspended than destroyed. Indeed, we know that in many this is the fact, as we often see these women get married; and, becoming more continent or faithful to one individual, have healthy children, and even large families.

Another cause is venereal affections, including gonorrhœa. Venereal attacks act not only upon the system at large, but also upon the procreative organs. In some instances, perhaps, the remedies employed in their cure may have a marked influence, and such effects have been, and perhaps not incorrectly attributed to mercury. Sometimes the disease is not eradicated, but lies dormant, and may appear after its effects in producing genital debility have manifested themselves, as may be illustrated by the following case:—

CASE.—In February, 1842, a gentleman consulted me, stating that he had lost all desire for sexual indulgence. He remained under my care for a considerable time without experiencing any benefit whatever; I now determined on exhibiting the hydrargyri bichloridum, which I first saw used in Germany; but before entering upon this new plan I proposed to him to consult Sir Benjamin Brodie, to which the patient having agreed, we called upon Sir Benjamin. The circumstances of the case having undergone a close investigation, it was resolved that the bichloride should be immediately commenced.

Sir Benjamin, upon this occasion, stated to me that he had seen several cases of a somewhat similar description, in which he administered this remedy with great effect. One in particular, was that of a gentleman who had served in the Indian army, and returned to England in consequence of finding himself impotent; the bichloride was given with marked success.

In the case under consideration, on examining^r the testicles, the epididymis in both felt indurated, thickened, and hard. Shortly after our visit to Sir Benjamin Brodie the patient complained of sore throat, which, on examination, was found to present a very suspicious appearance; copper coloured blotches also broke out, and appeared on different parts of the body. The remedy,

however, was continued, and decoctum sarsæ directed at the same time, under which plan, not only the ulcers in the throat healed, but the eruption vanished. The dose of the medicine was a little increased, by which the induration of the epididymis disappeared, the desire, as well as the capability for sexual intercourse returned, and with the exception of a little debility, which continued for some time, he perfectly recovered.

Here we may clearly connect the sexual inability with the venereal taint, affecting the condition of the testicle, more especially the epididymis; indeed, in most of these cases I constantly find the epididymis in an indurated, and sometimes knotted state, and so long as this continues, impotency and *spermatorrhœa*, or seminal weakness, will be the consequence. Venereal and gonorrhœal affections, when they involve the testicle, are more likely to be followed by such results, as perhaps will be fully exemplified in the history of the following case:—

CASE.—A gentleman, twenty-five years of age, fair complexion, blue eyes, narrow contracted chest, but no hereditary disposition to consumption; father and mother living, and in perfect health; auscultation and percussion elicited the healthy sounds; on consulting me, gave the following history:—

About two years ago he contracted syphilis, and then

suffered severely from orchitis. He could not positively state whether or not mercury had been given for the primary sore. He soon, however, recovered, and then went into the country. In about three months after his arrival at home, an eruption made its appearance upon the chest, which extended to the face, head, neck, and from thence speedily spread all over the body. For this, he consulted a gentleman practising in the village where he resided, who recommended an ointment to be applied to the spots, and some purging pills to be taken occasionally at bed-time. Under this treatment the disease somewhat improved for a short time, but he soon relapsed, and got worse again. He now consulted several other surgeons, but without any permanent benefit. A physician being at length applied to, directed the external application of zinc ointment; internally aloetic purges, and the vegetable tonics, with an occasional resort to blue pill and a black draught. This plan he continued for about eighteen months. But the disease, notwithstanding, gradually advanced, getting much worse. The throat becoming deeply ulcerated, the ulceration attacking the nose, tongue, and different parts of the body. There was a continual discharge from the urethra, and all desire, as well as capability, for sexual gratification were completely lost. In this state he was prevailed upon by a friend living in London to come up

to town, and on the 30th of November, 1842, I first saw him.

Upon examination of the fauces, I found the tongue and throat deeply ulcerated, and the nose in the same state. Copper-colour blotches all over the body; a constant running from the urethra; the testicles atrophied, soft and pendulous; the epididymis in each indurated and somewhat knotty; urine remarkably pale, large in quantity, and of low specific gravity (1.010), not coagulable either by heat or nitre acid. The sexual appetite entirely gone, with a total inability for such indulgence; the spirits much depressed; the mental faculties impaired; pale, sallow complexion; violent palpitation of the heart; disturbed and sleepless nights,—he had not had a sound sleep for months; severe nocturnal pains, and apparently a complete break up of the constitution.

The plan I adopted in this instance, was the administration of the *potassii iodidum*, with the decoction of *sarsæ*, to be taken three times a day. The *hydrargyrum cum creta* and Dover's powder at bed-time. Under this treatment the general health soon improved; the nocturnal pains were relieved, and sleep procured.

But, notwithstanding these signs of amelioration, the ulceration of the throat, and the eruption on the skin, continued, and were little, if at all, benefitted, although

the treatment had been steadily pursued for a considerable time. I now substituted the iodide of mercury for that of potassium, which he took three times a day. The ulceration of the throat and the eruption on the skin rapidly improved under the use of the mercurial iodide; but I could not persevere, as I was obliged to discontinue it in consequence of the severe purging which it caused. I therefore resorted to mercurial frictions, and restricted the internal means to the pulvis ipecacuanhæ compositus. The mucous irritation subsided, but the patient was reduced to a fearful state of debility, and his friends became greatly alarmed, fearful that he could not survive many weeks. In this emergency he was advised to abandon my plan of treatment, and place himself under the care of some obscure person living on Ludgate Hill, whom he consulted without acquainting me, and was told by him "that his disease had been mistaken, and consequently maltreated: that *he*, if he placed himself under *his* care, would cure him in a fortnight." The gentleman, in consequence, called upon me to say, that he should no longer require my attendance, upon which occasion, I first discovered exactly how the matter stood.

Upon a proper explanation, my suggestion to call upon Sir Benjamin Brodie for his opinion and advice, was agreed to, and ultimately adopted. Sir Benjamin pronounced the case "*a very bad one of secondary syphilis,*

somewhat modified by treatment:" fully approved of the plan I had pursued; directed the mercurial frictions to be continued; the Dover's powders at bedtime; and, what proved to me highly flattering, told the patient that "nothing better could be done for him."*

Confidence being thus re-established, the patient persevered in the mercurial frictions, till the ulcerations in the throat had completely disappeared. He was now put upon sarsaparilla and a course of tonics, by which his general health improved rapidly; the venereal appetite returned, and became so strong that he could not resist indulging it, notwithstanding the full recollection of how dearly he paid for his former imprudence.

Sometime afterwards, this gentleman again came under my care, suffering from gonorrhœa. Having relieved him, and being apprehensive of the serious consequences of further exposure to temptation, I advised him to return home to the country. I saw him some considerable time afterwards, when he told me he had never experienced a moment's illness after he left London.

But, perhaps, no cause is more fertile, more general, or more pernicious in its consequences, than that horrible and vicious practice, which one would rather leave to

* On our return through the City, we called at Ludgate Hill, when I got a sight of the wonderful prescription which was to supplant my plans, and to my astonishment, found it to consist of one drachm of carbonate of soda, one ounce of tincture, and six of infusion of gentian.

be imagined than actually mention. It is variously designated as onanism, masturbation, solitary vice, self-pollution, &c. Perhaps, too, few are aware of the extent to which this abominable practice prevails; and if the severity of these strictures should have the effect of, in any degree, suppressing so degrading a practice, I shall not consider my time misspent. This practice prevails amongst persons of all ages. I have seen patients who have admitted that, in youth, when at school, they had indulged in it to an inordinate degree. Others admitted that they had commenced in youth, and continued it even in their riper years; while some have confessed that even at the most advanced period of their life—in fact, in ripe old age—they had been unable to abandon a vice, which had attained such an ascendancy that they could not leave it off.

I have, in a previous part of this essay, detailed some cases in which the parties, when taxed with this practice, obstinately denied it; nor would they confess, till such strong facts were brought against them, that they could no longer resist the evidence. All who indulge in this habit will undoubtedly at first deny it; but by a little perseverance and management we shall soon obtain the necessary information. And this is a matter of some moment; because we cannot inculcate nor insist upon removing or suspending the operation of a cause, the

existence of which has not been admitted. All our remedies will prove abortive, so long as the patient indulges in his malpractices; and this he will assuredly do, unless he previously admit, and allow us to obviate, his delinquencies. Once admitted, when there is any change for the worse, we can impute his relapse to a recurrence to his former habits; and the apprehension of this will act as a check upon, and probably preserve him from impurity.

Perhaps, of all the causes which can bring on this disease, there is none more prolific than those just alluded to; and which, when practised to any extent, not only induce impotence, but also a train of nervous and other affections, which so far distress and embitter life, that the unhappy votary often seeks relief, from his sufferings, in suicide.

Self-destruction became so frequent, in Paris, among men of family, fortune, and rank, without any obvious cause, that an enquiry was instituted and the matter investigated. In most of these cases the testicles were found in an atrophied or wasted state. The epididymis indurated, sometimes much thickened, or even knotted. On farther examination, the seminal fluid, taken from the testis itself, or from the vas deferens, was found very deficient, and sometimes wholly destitute of spermatozoa. In some instances, when the attempt at self-destruction,

by throwing themselves into the Seine, had been prevented, some of the parties thus rescued from a watery grave, admitted that they had indulged, to such an extent, in this solitary vice, that they had lost all desire for sexual gratification. The mental powers were quite enervated, and the bodily strength so reduced, that they no longer enjoyed any of the comforts or pleasures of life. Some declared that existence was become an intolerable burthen, and that self-destruction offered the only refuge, and held out the only prospect of escape, from those evils which their own imprudence had entailed. Indeed, a young gentleman, the pupil of one of the most eminent of our surgeons in this country, shot himself because he had lost all power for sexual connexion.

With the atrophied condition, the testicles, in such instances, are found almost bloodless, and very deficient in their usual degree of vascularity; the membranous envelopes pale and dry, frequently even somewhat tuberculated; in some were found deposits of lymph. The body of the testis itself presents various morbid conditions, of which no proper classification has yet been attempted. The whole subject appears to me one of great interest, and deserving more attention than it has hitherto received in this country.

There are other causes of impotency, some of a

physical character, to which I do not mean here to refer; some, perhaps, more imaginary than real, old age for instance. It might be questioned if impotency ever depends upon this cause. Instances are not wanting of men very far advanced in years who have married young women, and have had families. Therefore it may be presumed that such persons are sterile from disease rather than decay.

Certain affections of the brain and nervous system, I mean original affections and functional derangements, are frequently associated with impotency; and they appear to act by withholding the necessary nervous influence. The causes to which I refer here as the most important, are excess in venereal indulgences, venereal affections including gonorrhœa, and masturbation.

DIAGNOSIS.—This comprehends the means by which we are to discriminate one disease from another, and in the present case how we are to distinguish the affection we are considering from the numerous secondary ones, with which it so frequently becomes complicated, and which, also, it has mainly contributed to induce. Were we to depend upon the constitutional symptoms, we perhaps should never turn our attention to the true seat of the disease, because these constitutional symptoms prevail in many diseases besides the one under con-

sideration. It is true that if we suspect the nature of the disease, we may be inclined to examine the testicle, and this often presents such obvious characters as will prevent all possibility of mistake. Thus, the withered condition, the indurated epididymis, and the care-worn and haggard appearance, are too striking to be wholly overlooked. But unless persons are acquainted with these characteristics, they may probably be referred to something else rather than the true source.

There is one thing that seems to be a very constant attendant, and that is an incessant discharge from the urethra. This is very often considered as gleet, an error into which we may be easily betrayed, from a review of the patient's former habits; many having suffered repeated attacks of syphilis or of gonorrhœa, and now, as it were, undergoing all the consequences. Hence gleet naturally offers itself as the explanation of any discharge from the urethra under such circumstances. But not only are the characters of the two discharges different, the gleety being mostly greenish, and almost clearly purulent, while spermatorrhœa, or the anaphrodisiac weeping, is thin and watery, with but trifling viscosity; and farther, the latter is almost always greatly increased in quantity after voiding the urine or evacuating the bowels.

I have always found in bad cases that the patient suffers from a sort of incessant oozing from the urethra, and that on talking to a female, or when in the society of

women, such persons experience a kind of pleasurable sensation, and a sort of involuntary emission succeeds. The following case, for the particulars of which, I am indebted to my friend and colleague Dr. Venables, who kindly obliged me with specimens of the urine, will illustrate the matter.

CASE.—A gentleman, on the point of marriage, stated that he laboured under a weeping from the urethra ; this was not very troublesome, but occasionally the discharge was more profuse. Sometimes the only evidence was a few stains, as if from the white of egg, observed upon the linen. But whenever in company with ladies, more especially if engaged in conversation with, or sitting next a lady, were it only at dinner, he experienced an uncontrollable erection, and this was attended with a sort of pleasurable sensation, speedily succeeded by an involuntary discharge.

The urine, in this case, was increased in quantity, about six or seven pints in the course of the day, specific gravity fluctuating between 1.025 and 1.028 ; of a deepish colour, and loaded with urea. He was now taxed with masturbation,* and in the confusion of the moment admitted the fact, although he afterwards denied it, alleging that he

* Dr. Venables has informed me that an excess of urea existing in the urine, is, under particular circumstances, an evidence of indulgence in a pernicious practice; and that he has often extorted the admission by abruptly making the charge, without allowing time for consideration. I can only say, my own observations have fully confirmed the correctness of these views, I believe first noticed by Prout.

did not understand the meaning of the word *masturbation*. But on examining the urine and the discharge, in the manner to be hereafter described, zoosperms were after a little examination discovered, and he confessed the whole truth, and gave the following account of himself:—

When at a boarding school, in the early part of his youth, he was taught this vice by some of his fellow-students. After leaving the school he became religiously disposed, and strictly avoided all sexual profanation, but still could not resist the impulse, which he felt, to indulge in the pernicious practice, the habit of which he had contracted while at school.

Persons, who have unfortunately contracted this habit suffer not only in body but in mind, and they hesitate to consult regular practitioners, fearful of a discovery of their real condition. “The condition of these persons,” says Curling, “is melancholy enough. Aware of the abhorrence with which their practices are regarded, they hesitate to consult the regular practitioner, and fly for relief to ignorant, but artful quacks, by whom their pecuniary resources are drained, for which they only meet in return with bitter disappointment. Such is the heavy penalty often paid by man for gross indulgence in sensuality—a degraded nature and a ruined constitution, embittering the best days of his existence, and sometimes leading to insanity or suicide.”*

* On the Diseases of the Testis, pp. 410, 411.

In cases of this sort, as exemplified above, the urine, if examined, will be frequently found to abound in urea, which readily crystallizes on the addition of *nitric acid*, and the interval between the addition of the acid and the crystallization may be taken as a hasty, but tolerably good index of the excess. The mode of making the experiment is as follows, and which I extract from Dr. Venables work :*—

“The normal proportion of this principle is about thirty-and-a-half parts in one thousand parts of urine ; but this principle may be unnaturally increased or diminished. When in the normal proportion, no crystallization takes place on the addition of nitric acid, even after a considerable interval,† but when urea is in excess crystallization takes place very speedily after the addition of nitrid acid, and the interval between the addition and the crystallization may be taken as a tolerably fair index of the excess of urea. To examine for this principle, a small quantity of urine should be placed in one of the glass capsules, and, with the dropping tube, nearly an equal quantity of nitric acid should be allowed to trickle along the concave surface of the capsule, so as to pass

* Guide to Urinary Analysis, &c., by Robt. Venables, A.M. M.B. Oxon, p. 10.

† In summer, as I have been informed by Dr. Venables, crystallization takes place soon enough to infer an excess of urea. This is owing to the rapid evaporation of the urine, and therefore to guard against error, the urine should be kept in a cool place, or evaporation prevented or restricted, by placing it under a glass jar.

under and float the urine upon its surface. If urea be present in excess, crystallization will take place, more or less speedily, in proportion to the excess. Urine abounding in urea has generally a high specific gravity, from 1.020 to 1.030, hence the specific gravity is frequently an indication of an excess of urea."

Urea, however, prevails in excess in many affections very different in their nature and character from the one under immediate consideration, and therefore urea can be made subservient only under special circumstances, or rather in connexion with other phenomena. It therefore becomes a problem of no small diagnostic interest, if there be any means by which the presence of this disease can be decided with some more absolute degree of certainty. It would appear that both the urine and the discharge itself from urethra, have within themselves the means of enabling us to determine this point. The urine generally, but the discharge from the urethra of such persons almost always, if examined, will be found to contain spermatozoa, the seminal animalcules alluded to in a previous page of this essay. These animalcules will be found more or less abundant in these fluids, according to the circumstances, and when in the urine are perfectly diagnostic, inasmuch as they are never found in healthy urine.

For the purposes of diagnosis, therefore, in this disease, the MICROSCOPE is *absolutely indispensable*. The sperma-

tozoa are so small that their minuteness is beyond the power of conception, and their size can be determined only by mathematical estimation. For the examination, or more correctly speaking, for determining the presence of such minute beings, the most perfect and the most powerful instruments are essential. Hence, an *achromatic* instrument on the *best* construction, with a magnifying power of *three hundred diameters*,* is essential for the discovery of these animalcules, supposing them actually existing in the urine. Nor is the microscope the only difficulty in this intricate and complicated diagnosis. It first requires considerable practice and manipulation to discover them even with a good instrument, and still much more to arrange the matter; so as to enable us to place them in the most favourable circumstances for being brought into view.

But, supposing that we have them already arranged, a little experience, and some familiarity with their form and appearance, are essential to recognising them even when in the field of the instrument. Perhaps the description here subjoined may prove of some use to those who may feel anxious to become acquainted with the diagnostic characters of the disease under consideration:—they consist of an elliptical head, or body, as some call it, formed by a dark outline, enclosing the transparent

* The cost of a good achromatic microscope is about £50, and may be had of James Smith, Orchard Street, St. Luke's; Ross, Powell, Pritchard, or any equally respectable optician.

portion within. In some there is an opaque, or black spot, in the transparent part about its centre. From the head or body a long tail projects, sometimes perfectly straight, at others waved, depending on the position which the animalcules had taken at the moment of arrested vitality. When living, they are lively, and in active motion; and when seen under those circumstances they can never be mistaken.

According to Wagner and other physiologists, the spermatic fluid secreted by the testicles of all male animals, capable of impregnating the female, is of a whitish colour and a thick consistence. For microscopical examination it is best obtained, and in the greatest purity and most completely formed, from either the epididymis or the vas deferens. The sooner it is transferred to the field of the microscope the better. An animal recently killed should be selected, when the examination is intended to be of the most perfect kind, or the human subject when recent, and before the seminal fluid can have undergone any material alteration, may be chosen.

A drop or so should be taken from the parts already mentioned, and placed upon a slide of plate glass, three inches in length and one in width. The fluid should be spread out delicately by a feather, or what is preferable, a soft delicate camel hair pencil, in order to extend the surface and separate the spermatozoa; otherwise, they are so numerous and crowded, that anything like a

distinct or perfect view will be impossible. Upon this, a slip about an inch in length and half an inch in width, should be laid over the extended seminal fluid. Previously to putting on the small slip, if it is intended to preserve the object, the edges of the slip should be touched with a very minute portion of varnish, made by dissolving sealing-wax in spirits of wine. The coating should be as delicate as possible, so as to admit the closest possible approximation of the opposing surfaces of the two plates of glass. The small piece should be as thin as possible, not thicker than a wafer.* When properly placed and adjusted, the connexion may be secured by a thicker coating of the varnish, applied to the edges of the small slip from the outside. If a slide, prepared as above, the subject being very recent, be brought into view in the field of an *achromatic* microscope, and with a magnifying power of three or four hundred diameters, the following phenomena display themselves:—

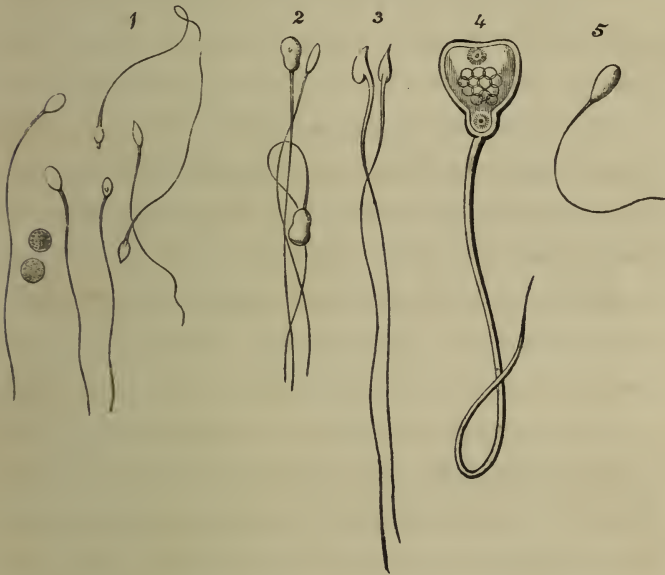
A multitude of very minute bodies of the form already described, closely connected together, and in more or less active motion,† is brought into view. On more attentive inspection, minute, round, granular bodies, less numerous than the spermatozoa, are readily observed.

* Slides, as they are called, may be had at most of the opticians.

† A slide, prepared as above and brought into the field of the microscope, will show the spermatozoa in a perfect state at any period afterwards, however long; the only difference being that, vitality being extinct, their motions will be no longer apparent.

These are named by Wagner, *granula seminis*—the seminal granules. Both these elements of the semen are suspended in a clear, transparent, perfectly homogeneous fluid, named the *liquor seminis*.

In the diagram the form and general appearance of the spermatozoa in man, and some other animals, are given.



Explanation of the diagram.

- Figure 1. The zoosperms in the human subject.
 2. The form of these animalcules in the dog.
 3. From the mouse.
 4. The same from the bear.
 5. From the rabbit.

The round bodies in figure 1 are the "granula seminis," or seminal granules of Wagner.

When a drop of the thickish semen, taken from the vas deferens, properly spread out upon a slide, is transferred to the object plate of the microscope, and the semen employed possesses the full quantum of vitality, it often happens that nothing more than a general intestine sort of disturbance can be observed. It would seem as if the masses of spermatozoa were engaged in a universal struggle to disentangle and disengage themselves from each other in the viscid fluid. If a minute portion of the serum of the blood be now added to the drop of semen, the motions become much more lively and obvious. In some cases this happens suddenly, and in others more gradually. Individual animalcules are seen to shake themselves, as it were, once or twice, then to turn on their axis, strike out with the tail, toss up the head once or twice, and then they dart in all directions across the field of the instrument. These movements at first, perhaps, confined to a single spermatozoon, gradually extend to others, till numbers in succession are involved. Here and there, for instance, a whole cluster seem to arouse themselves simultaneously from their torpor; while, in other instances, one or two contiguous ones of a mass seem to put themselves in motion, while the others will remain dormant throughout the whole time of the observation. But there is a great variety in all the phenomena, and such as baffles every attempt at description.

“It is stated that hours, and even days, after the sexual congress, the spermatozoa, still retaining their usual activity, have been found in the mucus of the vagina and of the uterus. They continue active in the urine, and in the bile, but for a much shorter period. Occasionally the motions suddenly cease, the animalcules dart about for a few times, and then become perfectly quiescent. Often they seem affected with spasmodic, or convulsive-like motions, more speedily induced by the admixture of a little pure water.”*

If an acidulous or alkaline fluid be suddenly added to a drop of seminal fluid, a rapid movement is immediately excited, and a disordered commotion pervades the whole mass. The spermatozoa shoot about in all directions; some are seen bending and twisting themselves violently; the tails frequently become entangled so as to form knots, and according to M. Donné, they die.

In men who suffer nocturnal or other involuntary emissions, the spermatozoa may be found alive in the urine, even for hours, as they do not die so speedily in certain states of this fluid. Hence, a microscopical examination enables us to detect indulgence in vices which the delinquent would fain, often, conceal.

The rodent animals are the best suited for studying

* Wagner.

the spermatozoa, because of the size and decided form of the spermatie animalcules in these tribes. Thus, the rat, the mouse, but more especially the squirrel,* have the spermatozoa very large, and the margin of the head or body is turned up, like the brim of a hat. In the larger animals, as the horse, the ox, &c., the spermatie animalcules are smaller and less defined, so that they are not so well suited for examining the microscopical characters of the animalcules in the seminal fluid.

According to M. Donné, the spermatozoa very quickly die in the mucus of the vagina, and of the womb, if that of the former be too acid, or that of the latter too alkaline. This observation is of great importance, and should be carefully treasured up in the memory, as it may be rendered subservient in the event of our being called upon for opinions in cases of marriages which have proved unfruitful or barren.† Willis observes that the

* See diagram, p. 41.

† Advantage has been taken of these facts for the purposes of criminal jurisprudence :—

“A man, suffering from gonorrhœa, was tried for a criminal assault upon a child. The child’s shift and other articles were sent to Messrs. Goodsire for their inspection and report. Some of the stains, of a yellow colour, were believed to be the effects of the gonorrhœal discharge; others, characterised by a faint colour and peculiar odour, were regarded as stains caused by the seminal fluid. Some portion of the linen supposed to be stained by semen, when macerated in water, rendered it muddy, and the fluid emitted a strong characteristic odour. A

spermatozoa live in the saliva, and in the urine, if not too concentrated, and more especially if the urine be kept somewhat warm. Hence, they are to be found in this excretion after nocturnal or involuntary emissions, even after the lapse of several hours; and hence, the urine, if examined by the microscope, will often enable us to determine the nature of his complaint, without even seeing the patient.

Some urine having been sent to me by a gentleman living a considerable distance from town, I discovered numerous spermatozoa, upon which I wrote, requesting to be informed whether he was subject to a constant discharge from the urethra, and if so to send up a small quantity squeezed out from the urethra, carefully packed between two glass slides.* In reply, the patient in-

portion of the linen was next examined in the field of the *microscope*, where the spermatie animalcules were detected, and easily recognised; the majority of them were mutilated, the greater part of their tails broken off, the head not so plump as in the living state, but perfect specimens were found differing in no respect, or in the minutest detail from the living animalcules, except in the want of motion. The prisoner was convicted, and sentenced to transportation for fourteen years."—Vide *Lancet*, 1844, p. 213.

* For the purposes of diagnostic investigation, two slips of common white window glass, about two inches long and half or three-quarters of an inch broad, which may be procured from any glazier, will answer every purpose. The discharge having been received upon one slip, the other is to be placed over it, and the whole secured with two or three winds of strong thread. So packed, the slips may be sent by post, and I have received them, thus secured, from very long distances in the country, and never heard of any accident or failure.

formed me that he had been long subject to gleet from repeated gonorrhœa, at the same time sending up some of the discharge. Upon microscopical examination, I found that it abounded in spermatozoa. I informed him, by letter, that I did not consider his case one of gleet, and hinted my suspicions as to the nature of his complaint, and that he was troubled with nocturnal emissions. I heard no more for three weeks, and supposed I had offended the gentleman, when he called one morning, at which interview he admitted that he suffered much from involuntary seminal emissions, and also that he indulged to a great extent in masturbation.

Willis states, that the spermatozoa still show feeble motions, and hence may be detected alive in the urine of persons who have indulged in this vice; but that he never found them in the urine of perfectly healthy men. They are found in the urine of men labouring under anomalous symptoms of a nervous character, connected with disorder of the vesiculæ seminales, and the prostatic portion of the urethra.

Wagner states, that the spermatic fluid, in its normal state, is a thick, viscid, whitish greyish, or a slightly yellowish coloured fluid, heavier than water, in which it sinks, but forming an emulsion when shaken up with it. It is said to have a peculiar odour compared to that of "grated bones," or the flower of the Spanish chesnut;

but this, probably, belongs to the fluids, with which it becomes commingled,—the prostatic secretion, &c.—as it passes along the urethra. Pure semen taken from the epididymis or vas deferens, has no such odour. Dried and burned, it gives off first an animal, and then an ammoniacal odour; the ammonia is a product resulting from the decomposition of the animal matter. It has an alkaline reaction, but this is owing to the free soda which it contains. It consists chiefly of albumen, earthy salts, and a peculiar animal principle named *spermatine*.* According to Vauquelins' analysis, its chemical composition is as follows:—

Water.....	90
Animal mucus (spermatine)	6
Free soda	1
Phosphate of lime	3
Chloride of calcium, a trace	

100

Crystals are never found in recent semen; but when it has stood for a considerable time, beautiful spicular crystals are observed, but of no definite form. In a specimen which I recently had, my friend Dr. Venables compared the form of crystallization to the appearance in

* Wagner, pp. 35, 36.

the cerebellum, named "*arbor vitæ*," and of which, certainly, it was a very exact representation. Upon the whole, however zoosperms, or spermatozoa, are the essential characteristics of this fluid. To sum up, then, the diagnostic characteristics of this disease:—

There are, after the continued application of some of the causes enumerated, *spermatorrhæa*, and a constant discharge from the urethra of a thin fluid, somewhat like white of egg, much increased on passing the urine, or a stool; nocturnal or involuntary emissions of semen; withering of the testicle, and what I have observed, but what I cannot find noticed by any author, an induration, or knotted enlargement of the epididymis. If with these we combine the microscopical examination of the discharge from the urethra, and of the urine, in which will be found spermatozoa, the matter will be put almost beyond the possibility of a doubt; nor shall we require any additional evidence. The constitutional symptoms are merely corroborative; but of themselves, independent of other diagnostic characters, really of no value. Their severity merely indicates the extent to which indulgence may have been carried, and the inroads which it has made upon the constitution.

TREATMENT.—The treatment of this affection may be arranged under two general heads: the *curative* and the

preventive. The curative, of course, consists in the application of those means which give tone and vigour to the system; and at the same time so act on the immediate organs, as to remove their debility and deranged condition. The preventive consists in the proper application of means which possess in themselves no direct influence over the morbid phenomena, but act as restraints upon the patient, preventing indulgence in those pernicious habits, which have reduced him to his melancholy condition, and which, if persevered in, may terminate in mania, imbecility, idiocy, or death.

It unfortunately happens that patients seldom feel so ill as to compel them to seek for medical assistance, till by lengthened perseverance, they have not only greatly impaired their constitution, but have also severely injured the genital organs themselves. It often happens also, as already shown, that the symptoms so closely resemble those of disease of an entirely different nature, that the attention of the practitioner is not directed to the real disease; and mere symptoms engross all the attention, while the organs actually suffering wholly escape. Hence, the disease proceeds, and if its character be at last suspected, it is only at a period when the constitution has been so invaded, that its condition imperatively demands our immediate attention.

One of our first inquiries, therefore, will probably be

into the state of the digestive organs, and the general action of the chylopoietic viscera. Independently of faulty digestion, the peristaltic motions of the intestines are torpid, and quite inadequate to the propulsion of their contents. Hence purgatives become necessary to cause the regular evacuation of the bowels.

In the selection of purgatives we must recollect that the bowels, and indeed the mucous surfaces generally, are in a highly irritable condition, and will not endure with impunity drastic agents. The milder aperients should be resorted to, and we must depend rather upon a persevering importunity than upon their violence or activity. An enumeration of these would be quite out of place here, and therefore the selection and application must be left to the discretion of the practitioner.

Having secured the due action of the bowels, we next turn our attention to the constitution, with a view to obviate the consequences of debility. In the section on the causes it was observed that repeated attacks of syphilis, and which, of course, may be regarded as involving great excess in sexual indulgence, frequently induce disease of the description under consideration. Debility of the system is a general consequence, and various tonics have been extolled as anti-venereals; none, perhaps, of this class have retained so high a character as

sarsaparilla, and although its reputation has experienced the various vicissitudes of conflicting opinion, yet it still has maintained some position in professional estimation. Sarsaparilla, either the simple or the compound decoction, may be given in tolerably large doses, till some degree of tone has been restored.

With some, the extract, or the fluid extract rubbed down in water agrees better; and when the digestion was much engaged, its combination with the extract of taraxacum, or dandelion, has appeared to me to exert a very wholesome influence.

Quinine is a very powerful tonic, and though applicable when the strength has been in some degree recovered, perhaps it is not quite suited to the weaker conditions of the digestive powers in this disease in its more aggravated forms. In some cases bitters are indicated, and by increasing the appetite and improving the digestion, they tend much to restore the health.

When masturbation has produced the disease, perhaps the most powerful and effectual renovator is steel. Iron, I believe, is applicable to the debility of any of the forms, but my experience compels me to look upon it as the most powerful tonic in cases of self-pollution.

Of the several forms of iron, the tincture of the muriate is the best of those enumerated in the London Pharmacopœia. The *Mistura Ferri Composita* is unques-

tionably the most active. The myrrh and alkaline salt intermixed frequently disagree in the debilitated stomachs of such patients.

Iron, as observed by my friend Dr. Venables, is most efficacious in the state of protoxide. This is its condition in the famed *Mistura Ferri Composita*, or celebrated antihæctic mixture of Griffith; but one of the chief objections is, that the proto-carbonate so rapidly passes into the per or sesqui-oxide of iron. Dr. Venables has lately conferred a great benefit upon the public by his researches into the medical preparations of iron. The proto-carbonate, as already observed, is by far the mildest and the most powerful pharmacopœial preparation; but as ordinarily prepared, independent of its ready spontaneous transition into peroxide, it is insoluble, and consequently less efficacious than when in solution. From the rapid transition, it must be administered immediately it is prepared. Hence Dr. Venables suggests the administering the proto-carbonate of iron, prepared and held in solution "by water highly surcharged with carbonic acid gas." Water thus acidulated, takes up and holds a large quantity of iron in solution, and the carbonic acid forms it into a very agreeable effervescing draught, correcting the taste, and rendering it not only agreeable, but actually a sedative to the irritable stomach. The medicine is prepared by an ærating

apparatus patented by Mr. Bakewell, and manufactured and sold by Knight and Sons, Foster Lane, Cheapside. Dr. Venables has published the result of his inquiries, which contains a mass of very valuable therapeutical information.

I have in several cases administered iron in the forms, and prepared according to the directions given by Dr. Venables* in his Essay on Aërated Waters, and from experience, I can speak with confidence of their efficacy. In some cases bitters may be conjoined with the chalybeate, those at least which contain no tannin, as quassia, colomba, &c.

While thus endeavouring to re-establish the general health, we must not lose sight of the cause of the disease, and if there be any probability of a renewed application by the patient, we must adopt some more powerful argument than persuasion to insure our object. If in the case of pollution, no precautions be taken to prevent repetition, no amendment can be expected; on the contrary, the disease will be inveterated, the symptoms will become more severe, and the disease aggravated rather than controlled by the tonic treatment suggested.

Now in cases of masturbation, and in cases of excessive

* Dr. Venables' Treatise on Aërated Medicines. Published by Knight and Sons, Foster Lane, Cheapside.

sexual indulgence, the use of Ung. Antim. Potassio-Tartratis: Emp. Lyttæ, or the Acetum Cantharidis, will completely prevent the abuses and excesses we are considering. A rather curious incident first suggested to me the idea of a preventive, which the history of the following case will fully explain:—

CASE.—Mr. ———, connected with a wholesale house for which he used to travel, became gradually enervated, suffering, as I may briefly observe, from the symptoms I have described, as more specifically characteristic of the disease under review. The health gradually declined, the strength failed, and the patient was at last obliged to withdraw himself from his occupation, that of a traveller, and to confine himself to transactions but a short distance from home. This patient had the reputation of being an extremely moral, fastidious and abstemious young man, which I believe was the case. Notwithstanding, in an unguarded moment, he contracted a violent gonorrhœa, attended with inflammation and intolerable chordee. These symptoms proved very obstinate, and in consequence of the delicate state of his health, little more was done than giving hyoseyamus as a sedative, and applying cold water to the penis to prevent painful erections.

I ascribed the severity of these symptoms to the impaired state of the general health, and felt greatly alarmed lest the inflammation might run into sloughing or even gangrene; and I consequently felt rather diffident in attempting any active measures. I found, however, the more severe the inflammatory symptoms the more the patient's health improved, and that when the inflammation had abated to a certain point he relapsed. Thus the gonorrhœa and the general health seemed to undergo alternate exacerbations and remissions. He now used, contrary to my direction, some injections of a strong solution of acetate of lead, which brought on swelled testicles or hernia humoralis, with suppression of the gonorrhœal discharge. The pain was intense, and what appeared at first sight surprising, the patient's health, notwithstanding, greatly improved.

Reflecting upon these circumstances, I began to suspect that the gonorrhœa, when sufficiently severe, acted as a preventive, by restraining the patient from indulgence in a pernicious practice, (for I had learned previously the nature of his complaint), in which he indulged to a very great extent. It therefore occurred to me that if I could keep up a certain degree of soreness of the penis, I should accomplish one great purpose—restraining the patient from indulgence in pernicious habits.

Hence, if we feel satisfied that the patient indulges in the manner stated, nothing will tend to control this so much as the application of some irritant to produce pustules, or vesication. The ointment of Antimon. Potassio-Tartrat. soon causes irritation and pustules, but this effect may be expedited by the application of the Acetum Cantharidis. A fold of linen, wet with the diluted liquor, should envelope the penis, and as it dries should be rewetted; this causes inflammatory irritation of the skin, and the Ung. Ant. Potassio-Tart. then acts speedily.

It has been stated that the condition of the testicle in these cases is often peculiar. The epididymis is thickened, indurated, and frequently nodulated. There is no remedy with which I am acquainted, so powerful in subduing this state and restoring the testicle to its healthy condition, as the *bichloride* already mentioned. I have sought in vain for an explanation of this, but although some of the most eminent surgeons whom I have met in consultation have prescribed it, none could offer any explanation beyond the simple fact that experience had proved its efficacy, and confirmed its activity as a remedy. From my own experience, I can only assert that it has proved a most valuable auxiliary in my hands, but I never found it of any benefit when the epididymis, in one or both testicles, was not in the morbid

state already noticed; when this is the case, I think every other treatment will be found useless, and that the bichloride alone will cure the patient. As examples of the efficacy of the bichloride, I shall detail the following cases which lately occurred to me.

CASE.—A gentleman consulted me in July, 1843, under the following circumstances:—It appeared from the previous history, that he had been suffering for many months from the acute stage of gonorrhœa, for which he used a variety of remedies; cubebs, copaiba, &c., and some of the most potent astringent injections. The result was acute inflammation of the testicle, ending in chronic enlargement and hardening of that organ. At this period he first observed that his desire for sexual indulgence had remarkably decreased, and had at last become extinct, which caused him much uneasiness, and he called upon me. I found his mental powers very much impaired, and although in the very prime of life, his health and bodily strength rapidly failed. Naturally warm-hearted, and full of life, vigour, and spirits, he had become chilled by disease, obtuse, callous, and indifferent.

On examining the testicle, I found the epididymis in the state already mentioned, enlarged, indurated, with a rough tuberculated feel. I commenced by giving tone to the general system—for I found it very much debili-

tated—by administering the various tonics I have before mentioned. I then used the “*porte-caustique*,” according to the directions of M. Lallemand, and this was applied twice: the tonic medicines, though continued for some months, produced but little benefit. He continued in this way under my care for several months, and I gave up all hopes, as he had been under the care of some other practitioners, of being able to render him any material service. Without anticipating the same benefit from its use, for the ordinary attention had been given to the swelled testicle for a considerable time, I determined as the last resource to try the bichloride. I therefore gave it in combination with sarsaparilla. He continued the use of the above with very little intermission for some months, when I was agreeably surprised to find that the epididymis began to feel softer, to decrease in size, and at length to become quite natural. He pursued this plan, with some other adjuncts directed to improve indigestion, regulate the bowels, and strengthen the system, for some time, when I found that the testicle was restored to its natural condition; his health renovated; that his sexual appetite regained its former keenness, and, in fact, the patient was in the full enjoyment of health and natural vigour.

It is a constant feature in these cases that, in consequence of the effects upon the nervous system, there is

a dissatisfaction, a restlessness, and an impatience under every plan and regulation, that renders the treatment, however well directed, unsuccessful. Thus, they apply for professional assistance, and after a few visits, and an imperfect trial of the plan suggested, feeling no amendment, they fly to others in rapid succession; or, broken down both in spirit and in strength, they become at length the prey upon which the nostrum-mongers feed. The case which I subjoin affords an example; and I understand that, after consulting a number of the most eminent and respectable surgeons in London, he paid twenty pounds to one of the advertising quacks about town, who engaged to cure him in a month.

CASE.—The gentleman alluded to above consulted me in October, 1843. He was a remarkably fine, healthy looking man. He told me that he had never suffered in his life time from illness of any consequence, with the exception of having been confined, to his room for a few weeks, with swelled testicle, attended with intense pain and acute inflammation, and which it had proved a matter of some difficulty to remove. When, however, the acute symptoms and swelling had subsided, he discovered that although the appetite remained, the power of sexual gratification was entirely lost; nor could he exert it under any circumstances. This pro-

duced a considerable degree of mental excitement and vexation, by no means abated by the fact, that he was engaged to a lady of considerable fortune, great attractions, and superior attainments. He had consulted a number of the most eminent surgeons, but being extremely anxious and impatient, he passed from the care of one to another with such rapidity, that he destroyed every chance of benefit.

Having had some hints relative to this line of conduct, when he consulted me, I declined undertaking the management of his case, unless upon certain conditions, which were, first, that he should adhere strictly to the plans laid down for him; secondly, that he should persevere for at least six months. I then explained to him my views of the cause of failure, viz.—his constantly changing his medical adviser, and throwing himself into the hands of incompetent persons, without affording the skilful surgeons whom he consulted sufficient time to effect any good. Having acknowledged the justness of my remarks, and acquiesced with my proposals, I undertook the management of his case.

On examination, I found swelling and some remains of hardness in the testicle; the epididymis in the condition already mentioned as peculiar to these cases. Under such circumstances I prescribed the bichloride, in the use of which he persevered for several months.

Although upon some occasions he took other remedies, still I cannot but assign all the credit of his recovery to the bichloride. The effect of this medicine at first and for some considerable time, was in no way apparent, but at length, upon a strict perseverance, the testis began to get softer and to become natural. The induration in the epididymis also gave way, and at last disappeared by almost imperceptible degrees. When the epididymis recovered its natural state, not only the appetite for, but the capability of, sexual indulgence returned.

To insure the effect of this medicine and a perfect recovery, a perseverance in its use for a sufficient period is absolutely essential. This will be exemplified by the following case, which occurred to me somewhat about the same time:—

CASE.—In the early part of May, 1843, a gentleman from the country called upon me to request that I would prescribe for him. He stated that some time ago he had come to London to be married, and that the marriage was to be celebrated in three months, when he discovered that his sexual desires and capabilities were both extinguished. Looking upon this as the effect of mental or some nervous emotion, I endeavoured to reassure him and to convince him that he would be soon restored.

He seemed delighted with my assurance, and at once commenced upon the plan I suggested, which he regularly pursued for two months; but I regret to state, without the slightest benefit. I now proposed to examine the testicle, when, to my utter surprise, I found the epididymis of both testicles enlarged and indurated. As he was a man of a very religious turn of mind, I never for a moment suspected that his disease was referable to any impure or illicit cause. He assured me that he never had swelled testicle in his life, or that he had ever indulged in any vice whatever. Nevertheless, he did not, satisfactorily to my mind, account for his knowledge of his own impotency.

I directed him to take the bichloride, which he continued for a short time, when he became dissatisfied, said that he had been always disappointed, and I lost sight of him, having understood that he consulted somebody else. I have had no opportunity of learning the result, but I know that he has not been married yet, if this can be construed into any indication of what may have happened.

The following case is another in which the efficacy of the bichloride, when sufficiently long continued, is satisfactorily proved:—

CASE.—A gentleman from one of the manufacturing

districts, who had occasion frequently to visit London, on one of these occasions unluckily contracted gonorrhœa. This was attended with high inflammatory action, producing swelled testicles, which confined him to bed for several days. On the subsidence of the inflammatory symptoms, he left London, the testis continuing enlarged but not painful. On his return home, however, he discovered that he had lost all sexual power. This was the cause of a good deal of anxiety and irritability of temper, as the impotency continued without intermission for the space of two years, notwithstanding he had consulted some of the ablest men in his neighbourhood.

A patient, whom I relieved from stricture, persuaded him that he was suffering from a similar disease, and strongly urged him to consult me. On examination, I found the urethra perfectly healthy; but I found the testis still enlarged and somewhat hard, the epididymis indurated. I now apprised him of my view of his case, and urged upon him the necessity of perseverance, even though he should not experience any benefit for a considerable time. I then prescribed the bichloride, which he took for some months before he perfectly recovered, which however he ultimately did. I have frequent opportunities of seeing this patient, and he invariably informs me that he feels perfectly well and completely cured.

From these cases it will be seen that impotency very

often arises from gonorrhœa, as well as from venereal affections, generally; and in such cases, though I have *not seen* the fact noticed in any of the numerous authors that I have consulted, I usually find the *epididymis indurated* in the manner I have mentioned. This is certainly a matter worthy of observation, and perhaps, when more minutely investigated, may tend to throw some light upon the matter. It was my lot, in the period of my pupilage, to be placed in the residence, and under the superintendence, of a professor of high standing and very extensive practice. Had I not resided in the house of this gentleman, and thus enjoyed numerous opportunities, I never could have imagined that so many persons, immediately after marriage, became, or at all events, complained of having become, impotent. This can only be referred to impure indulgence before marriage, and the excitement which usually supervenes, or succeeds to this state. Although many of these are to be referred to mere functional, or temporary derangement of the nervous system, and require only a little reassurance and gentle medical treatment for their relief, yet I am satisfied from experience, that many cases of confirmed sterility occur under such circumstances.

When masturbation has been practised to a great extent previous to marriage, impotency is a very frequent, and often immediate, result. The incessant discharge

from the urethra which constantly attends in these cases, and the microscopical examination of the discharge itself, will always be sufficient for correct discrimination.

In such cases, there is no means with which I am acquainted that proves so active or so beneficial as cauterising the urethra with the *argentum nitratum*; indeed, it seems to be the only effectual means. This practice, first introduced by Professor Lallemand, appears to act on the seminal vesicles and follicles of the prostate gland. Farther, "it allays the morbid sensibility, and corrects the altered condition of the membrane and orifices of the ejaculatory canals, and thus arrests the excessive secretions of the testicles and prostate. The nitrate of silver, when applied to the diseased part of the urethra, appears to act on the seminal vesicles and follicles of the prostate gland very much in the same way as a stimulating application to the conjunctiva of the eye relieves a morbid condition of the membrane of the nasal sack or ducts being absorbed at the puncta lachrymalia. The dissolved caustic, entering at the enlarged orifices at the sides of the vera montanum, reaches the interior of these glands."*

Mr. Curling seems to think that Sir E. Home was not altogether unacquainted with the efficacy of the *argentum nitratum*, in cases of seminal emissions resulting

* Curling, &c., p. 416.

from solitary abuse, and mentions two cases which were greatly relieved by the use of armed bougies. This mode of application, however, is very defective, and quite inadequate to the purpose. The instrument devised by Lallemand is the most perfect, and indeed affords the only effectual method of applying the cautery.

It consists of a middle sized catheter tube, open at either extremity, but closed laterally; that is, not perforated by lateral holes, as the ordinary catheter is. It is slightly curved at one end like a catheter, but straight at the opposite. It is filled with a flexible stilette named "porte-caustique" or caustic holder. The caustic holder is terminated by a round button-like head, which can pass through the tube; but as the caustic holder is longer than the tube, it can be pushed beyond the extremity for an inch or so. The part which proceeds from the button-like head, has attached a piece of platinum formed into a groove. The stilette is some inches longer than the tube, and is furnished with an adjusting screw, by which it can be firmly fixed at any length, so as to expose any required portion of the groove by projecting it beyond the end of the canula.

To use the instrument, we put the nitrate in powder into the groove, and fuse it in the flame of the lamp, by

which, when it cools, it becomes firmly attached to the walls of the groove. It is advisable to wrap the whole in a piece of platinum foil, and fuse it for a second or two in the flame of the blow-pipe, because when held in the flame of the spirit lamp, the carbon and hydrogen in combustion act as a flux, and partially reduce the salt. The stilette thus prepared, with the groove armed, is to be placed in the canula, and the adjusting pin being arranged, the stilette, with its armed groove, is to be drawn within the canula till the button-like head is close to the open end—in fact, resting against it. It now resembles an ordinary metallic bougie, and as such is to be introduced into the urethra, and passed on till we arrive at the diseased spot. We now push the stilette onwards, the armed adjusted groove is exposed, and the nitrate comes in contact with the diseased portion of the urethra, prostate, or wherever else we may wish. If the exposed part be rolled once round, the whole circle of the urethra will be subjected to the action of the cautery; but when the object is to touch merely a single spot, this is done by introducing and arranging the stilette, so that the armed groove shall be opposed to the disordered spot. The instrument so adjusted is introduced to the required length, and the stilette being once or twice pushed forwards and again withdrawn, the operation will be complete, and the apparatus may now be removed from the urethra.

The effects of the nitrate when thus properly applied are very satisfactory; one or two applications generally put an end to the nocturnal emissions, and the weeping from the urethra mostly ceases, although this latter may perhaps require three or four applications before completely successful.

It was, and I believe even now is, the system to advise marriage as a curative in these circumstances, but I think upon very erroneous principles; at all events, experience does not confirm its prudence. Persons in this condition, complaining of a continual discharge from the urethra, nocturnal or other involuntary emissions, imperfect erections, &c., should endeavour to recruit themselves by restrictions, or celibacy, and not aggravate their disorder by entering into the marriage state. The unhappy effects of this plan, perhaps, will be rendered more apparent by the history of the following case:—

CASE.—A gentleman was suffering for upwards of two years with a discharge from the urethra, which was looked upon as a sequela of gonorrhœa. He consulted a medical gentleman, under whose care he remained for nearly the above period, and who put him under the influence of *copaiba*, *cubebs*, and the whole routine of urinary astringents, administered, too, in the most extraordinary doses. The disease, however, still continuing

unabated, this gentleman suggested marriage as a means of cure, which advice the patient adopted; and the consequence was, that I was shortly afterwards consulted by his lady, who was labouring under the impression that she was suffering from the effects of his previous delinquencies, as the gentleman stated that he had had a venereal attack or two previous to his marriage. However, I could not discover any satisfactory evidence of gonorrhœa, which would have been most in accordance with the lady's state; and although I endeavoured to assure her, by explaining that many ladies were often affected in a similar manner immediately after marriage, I could not succeed in removing the morbid impression from her mind. Under this conviction, she begged her husband to call upon me, when he stated that he had been affected in consequence of previous imprudence, and expressed his fears that he had infected his wife. However, I was soon able to satisfy him on that point; and I then learned the following particulars. The discharge from the urethra had been brought on by improper indulgence; and he now found that although he could not have a perfect erection, the most trivial circumstances caused a sort of seminal emission, and that during the night, he generally had from three to four or five nocturnal emissions; and although sleeping with his wife, he felt not the slightest desire, nor did he feel

capable of the sexual act. This he said was productive of much uneasiness—indeed, unhappiness to both parties, and he felt in consequence very miserable.

I assured him that the case was not so hopeless as he imagined, and explained to him what it would be necessary to do. I therefore cauterised the urethra, which afforded very great relief; and the discharge was very much reduced. I advised him to separate a little from his wife, in compliance with which he left town for Brighton, where he remained two months, and then returned perfectly cured.

It cannot be too strongly impressed upon the mind, that marriage under these circumstances is very frequently indeed followed by impotency, and often, instead of a gradual, makes its attack suddenly, and without any warning, so that the party is not aware until he makes the trial, of his inability to consummate the venereal act. This will be fully exemplified in the history of the following case:—

CASE.—A gentleman consulted me who premised frankly that, when very young, he indulged to a very great excess. Being a gentleman of considerable fortune, he accustomed himself to wine and good living, and all the various stimulants so well adapted to excite the animal propensities. Every season, he visited Paris,

Rome, and other fashionable foreign localities, where he used to spend several months. Here he enjoyed the society of the fair sex, having introductions to all the most fashionable society. He now debased his feelings and his morals by means too well understood to require further explanation here.

At length, satiated and disgusted, he determined to reform, and cultivate domestic comfort. With this view he made an offer to an accomplished, amiable, and beautiful young lady; was accepted, and on his marriage settled a very considerable property upon any male issue that might prove the result of this alliance. He had not been more than six months married, when he suddenly became completely impotent, and utterly incapable of the sexual act, which had the effect of souring his temper, giving a moroseness to his disposition, and rendering him truly wretched.

Under these circumstances he consulted most of the eminent medical men in London, and then went to France, where the urethra was cauterised; but he was obliged to leave and return to England before the effects could be clearly ascertained. On his arrival in England he applied to me (I believe at the suggestion of the operator), but as I found that the urethra had been cauterised two or three times in France, and that severe symptoms had set in, greatly aggravated, most likely by travelling,

I did not judge it prudent to repeat the operation. On the contrary, I found so much irritation that I was obliged to tranquillize the system by opium, hyoscyamus, and sedatives in general.

When irritation had subsided, he entered upon a course of tonic medicines in conjunction with the alkalies and Ext. Hyosecy., using sea bathing, and abstaining entirely from all venereal gratification for six or seven weeks, when he returned home perfectly well, and his health completely renovated. His wife shortly after became pregnant, and in due time was delivered of a daughter, full grown and in every respect healthy.

Nothing is so apt to produce relapse as a return to former excesses, and we should endeavour to prevent this by every means in our power. Persuasions I find almost wholly useless, and I therefore resort to some of the preventives—Unguent. Antim. Potassio-Tart.—already mentioned. These are the only effectual persuasives, and they are always certain if their operation be kept up.

The connexion between urinary and cutaneous affections has been long established and is now generally acknowledged; I am not, however, aware that anything of the kind has been observed with respect to cutaneous affections and impotency. However, sometime since, I met with a case of lepra with which impotency was

either an accidental association, or a real complication. The nature will be best illustrated by the history:—

CASE.—In May, 1842, a gentleman consulted me, in consequence of a leprous affection from which he was suffering, and which had resisted, for years, every plan of treatment adopted for its removal. The body was completely incased in the eruption, and the scales detaching, while others replaced them, falling in such quantities during the night that it was necessary for the chambermaid to collect them every morning in the dust pan. I directed for him the *Liq. Arsenici Hydriod. cum Hydrarg.*, to be taken three times a day, with four grains of *Hydr. cum Creta*, and six of the *Pulv. Ipecac. Comp.* at bedtime. He used an ointment of the *Sulph. Hypochloridum* externally. This plan he pursued for some months, which ultimately cured him. In a note which I received from him, conveying to me the pleasing intelligence of his recovery, he informed me that he was not the only person obliged, as the removal of the cutaneous disease was attended with that of another—impotency, from which he had been suffering for some years. As he had formed an early attachment, and entered into a matrimonial engagement, which these two impediments completely marred, their removal proved a source of no small pleasure.

We are frequently consulted in cases of gleet, or at all events, by patients who imagine that they are suffering from gleet. After what has been already observed, I need scarcely state here that a microscopical examination of the discharge should always be instituted; as, otherwise, we may be deceived as to the real nature of the affection, and be prescribing remedies in vain for a disease which has no actual existence, while we are wholly neglecting that whose real existence is productive of all the misery and mischief. It may appear, perhaps, more candid than prudent to admit that, upon more occasions than one, I have split upon the very same rock from which I would warn others; and if this admission prove a beacon to preserve any of my professional brethren from a similar shipwreck, I shall not regret this acknowledgment.

In considering the treatment applicable to this disease, I have endeavoured as much as possible to avoid the ordinary routine of remedies. Their nature and mode of administration are too well understood to require any detail from me. Indeed, any such, as wholly unsuitable, would be quite out of place here. I have endeavoured to confine myself wholly to the phenomena especially relating to a form of disease which has never been suspected to exist, much less been a subject of research by many, I may even say, the majority of the medical

profession in this country. I have, therefore limited myself to the consideration of remedies and modes of treatment altogether novel, leaving the more usual methods and their selection entirely to the judgment of the practitioner.

I cannot quit this subject without making a few remarks respecting the treatment of two specific diseases, gonorrhœa and syphilis, which, it has been shown, contribute so much to the production of impotency; for I feel convinced that there is much room for improvement in the treatment of these diseases. In my opinion, if we could dispense with such disagreeable and nauseous medicines as copaiba, &c., and substitute more speedy and more effectual methods of cure, we should do a great deal in benefitting the patient and averting those after-consequences, some of the more serious of which have received a large share of attention in the preceding pages.

I have had ample opportunities of observing the various modes of treatment practised for the relief or cure of gonorrhœa and syphilis at all the great schools in Europe—London, Edinburgh, Paris, and the Continent generally; and the plans at these places are so much at variance with each other, and in particular cases so diametrically opposite, that we should be inclined almost to infer that we were observing the treatment of different

diseases, but designated by one and the same name. In this country, the chief reliance for gonorrhœa seems to be upon cubebs and copaiba; but the latter, from its disagreeable taste and nauseous qualities, is soon abandoned by the patient, however obstinately resisted by the surgeon. Nor are these the only objections. They are so slow and tardy in their progress that, as often happens, the seeds of serious affections,—organic diseases of the testicles, and of the different parts of the urinary system—are sown, or even developed before they manifest the exertion of any control over the disease for which they were administered.

While in the dilemma in which the observance and contemplation of these facts had placed me, an intimate friend applied to me, while resident in Paris, in consequence of a severe gonorrhœa. He commenced, however by declaring that no consideration whatever, should induce him to take any medicine containing either cubebs or copaiba, for he could endure neither one or the other. Even the smell he found so nauseous and disagreeable, that it caused intolerable sickness, and even vomiting. He also attributed an attack of swelled testicle, and a stricture under which he was then labouring, to large or over-doses of these medicines. Feeling at a loss how to act under these circumstances, I consulted M. Ricord, surgeon to the Hôpital des

Veneriens upon the case, and he recommended a solution of the *argentum nitratum* to be injected into the urethra. The pain, scalding, and discharge were increased upon the first application; but their severity was kept down by the exhibition, internally, of sesquicarbonate of soda, tincture of hyoseyamus, and mist. camph., with a cold application to the penis. By the next day, nearly all the inflammatory symptoms had subsided; and the injection was again used with a slight return of the inflammatory action, which, however, speedily yielded to the local application. It was unnecessary to resort to the injection again, or indeed to pursue any other treatment, for in a few days from the first application I was agreeably surprised to find the patient perfectly cured. The great advantage in this case was, that the patient recovered in an incredibly short time, without taking a particle of disagreeable medicine, and which he abhorred so much that nothing I believe could have induced him to submit. I carefully watched numerous other cases treated in a similar way, all of which recovered very rapidly, and without any bad symptoms, although many had resisted the ordinary treatment for weeks, and some even for months.

When I first commenced practice, I was in the habit of treating gonorrhœa in the usual way; that is, if there was much inflammatory action in the urethra, with severe

scalding, and other symptoms of irritation, I mostly gave purgatives and cooling medicines, with plentiful dilution. But if it was a first attack, and the inflammatory symptoms ran high, I relied principally upon antimonials soda, hyoseyamus, and camphor; cold applications to the penis and perineum. These means generally proved efficacious in speedily removing the inflammatory symptoms, or at all events, in reducing their severity. On subduing the inflammation, I usually directed a solution of *argentum nitratum*, in the proportion of one grain to the ounce of distilled water, to be injected into the urethra night and morning. This plan I pursued for a considerable time, in both my public and private practice. I must confess, however, that my success by no means equalled my expectations, and I found that the progress towards recovery was not only slow and painful, but that various secondary effects frequently set in to aggravate the distress and the patient's suffering. I therefore determined to abandon the plan I had hitherto pursued, and being solicited by some patients acquainted with the success which attended the practice adopted with respect to my friend in Paris, and who refused to submit to any other mode, I determined to give the method a fair trial, but only on the understanding that I myself should be the operator, and inject the solution. I owe it to truth and justice, freely

to confess that my success since has far exceeded that of my former method. I have had opportunities of testing and comparing the success of the two methods, and I must acknowledge that all the cases, and these by no means few, treated on the latter plan, have recovered much more speedily and much more effectually, inasmuch as they have not experienced any of the severe consequences which so frequently supervene virulent gonorrhœa.

I now feel assured that the failure in the earlier part of my career is solely attributable to neglect, in not adopting several precautions essential to complete success. And first with respect to the syringe itself.

In my opinion, no other material than platinum or gold is at all suitable for this instrument. All other metals are more or less acted on by the nitrate, and consequently the purity of the salt affected in a corresponding degree, and its efficacy impaired. Again, its capacity should not be great. If, like one of the ordinary metallic syringes, it hold an ounce, the quantity injected will produce too much distension of the urethra, already in a painful and highly irritable state. The syringe should not be capable of holding more than two fluid drachms. It should be furnished with a pipe at least two inches long, and about the diameter of a No. 5 catheter. The length of the pipe should be such that it can be intro-

duced fully into the urethra, and reach the disordered part. No other material than gold or platinum will answer for the syringe; bone is soon acted on by the injection, and even glass, both from the liability of the pipe to be broken off in the urethra, and the cork to which the piston is attached acts upon the injection and decomposes it, or renders it impure.

Another matter of importance is the mode of preparing the injection itself. If the ordinary waters be used for dissolving the nitrate it will be decomposed, in consequence of the alkaline and earthy salts, especially chlorides, which these waters hold in solution. If, then, such waters be used, we should have an insoluble chloride, or carbonate of silver mechanically suspended, instead of a solution of the nitrate. On this account the purest distilled water should be used, and its purity should be tested and satisfactorily ascertained, before we dissolve the salt. The solution, too, should be made at the time of using, for if it be exposed to the light decomposition will take place, and the purity and efficacy of the injection be alike affected. These may appear niceties, rather than important directions; but I can only say that I have found attending to these minutiae of the utmost service. To use the injection we proceed as follows:—

The injection having been carefully prepared, and at

the first in the proportion of a grain to the ounce of distilled water, which, if requisite, may be subsequently increased; we direct the patient to empty his bladder, to prevent the necessity of micturition for some time after the operation. The patient being seated on the corner of a chair, the operator opposite to him lays hold of the penis, and introduces the pipe of the syringe, previously charged with the injection, into the urethra, and passes it on to the requisite depth. The piston is now gradually but steadily pressed down so as to expel the injection. Having emptied the syringe, we keep the pipe in the urethra for about a minute, to secure the contact and action of the injection upon the diseased mucous surface. The instrument is then to be carefully withdrawn.

In some instances the patient suffers little or no inconvenience, and therefore requires but little after attention. If, however, as occasionally happens, the patient experiences any uneasiness or painful irritation, he may take an anodyne draught, consisting of sesquicarbonate of soda, tincture of hyoscyamus and camphor mixture, and which may be repeated every three or four hours as the symptoms require. A cold lotion should be applied to the penis, and a suspensory bandage should be in readiness to support the penis if requisite. This bandage should fit exactly, and care should be taken

that it cause no inconvenience nor occasion any pressure to the part it is intended to support.

The patient should be cautioned strictly to avoid everything calculated to irritate or excite inflammation. He should be instructed, too, to retain the urine as long as he possibly can; but when this becomes no longer practicable, a small quantity of the *Oleum Amygd. Dalæ* should be carefully introduced into the urethra, to defend the mucous membrane as much as possible from the acrimony of the urine.

If, however, notwithstanding all these means, severe irritation should come on, I have found a few grains of the *Extractum Hyoscyami* rubbed down in a little warm water, to which were added about ten minims of Batley's *Liquor Opii Sedativus*, to form an excellent soothing lotion. A few drops of the above mixture should be very carefully injected into the urethra, and retained there for a sufficient length of time. At the same time cold lotions should be kept constantly applied to the penis and perineum. These means, with perfect quiet and a spare low diet, so far as my experience goes, have always proved sufficient to control any severe symptoms that may have arisen.

When the patient suffers much from repeated attacks of chordee, in addition to keeping the penis enveloped in cold wet cloths, I have found a suppository, composed

of hyoscyamus and camphor, a most valuable means of allaying the irritation and keeping down those painful erections of the penis which are productive of such excruciating torture to the patient. If these instructions be carefully followed and strictly adhered to, I think the duration of the disease will average between the two extremes of three days and three weeks. But it is to be recollected that these are the extreme durations, and I would set down the average period, under careful management, between about five days and a full week.

But if, on the other hand, the injection have been resorted to too soon, and before the *acute inflammatory* stage have been subdued; or if the material of which the syringe has been constructed act upon and decompose the nitrate; or the capacity too large, suppose holding an ounce instead of two drachms; the injection made by dissolving the salt in impure water; but, above all, if the pipe of the syringe be not of the due length and diameter, the consequences may prove anything but satisfactory.

An unskilful operator, too, will contribute much to render this mode of treatment unsuccessful. I attribute my want of success at the commencement of my practice to trusting to directions given to the patient, and resigning the different manipulations to persons either

careless or incompetent. But since I adopted the plan of taking upon myself the actual charge of the minutiae, and performing all the more delicate operations with my own hands, I cannot bring, when I have been able also to secure the strict co-operation of the patient so far as he was concerned, I cannot, I say, bring to my recollection a single instance of failure, or of any prolonged severity of symptoms; the average period of cure being generally within a week or ten days.

M. Ricord, an authority upon this subject which stands pre-eminent,* observes, with his usual frankness and candour, that the use of *Argentum Nitratum* in gonorrhœa deserves minute and attentive consideration, and that its employment should be much more frequent and extended than it has hitherto been, not only with a view to determine the best mode of its application, but also to discriminate the peculiar circumstances to which it is best suited, and in which it is most likely to succeed.

He farther states that injections in the treatment of

* M. Ricord enjoys opportunities which can fall to the lot of but few. He is attached to the "Hôpital des Veneriens à Paris," making up 645 beds devoted wholly to the accommodation of patients suffering from gonorrhœa and syphilis. During the twelve months that I was a pupil at this hospital, upwards of four thousand patients from one or other, or both of these complaints, in their various stages and degrees were admitted; consequently, the opportunities of studying and investigating their nature are ample.

gonorrhœa possess numerous advantages to recommend them in preference to the other modes. One important one is, that concealment of the patient's position is much more easy than under any other method of cure; but a most important advantage is, that they exert no influence whatever in obstructing the functions of any other organ; nor do they affect the general health. The only objection, and that which has caused them to be laid aside by some, is more an *ideal* effect assigned to them by some of inducing *stricture*. But, upon calm consideration, we must acknowledge that strictures of the urethra occur only in patients who have suffered from repeated attacks of gonorrhœa; or who have endured a gonorrhœa unsubdued or neglected, and for a very lengthened period. Such persons resort to injections too late, when in truth alterations of tissue have already taken place. But should stricture occur, even when injections had been resorted to, and at the proper time, it has been only when the injections failed to effect the necessary control over the progress of the disease, and proved unequal to the arrest of their advance. Under such circumstances, in consequence of the protracted duration of the gonorrhœa, morbid alterations of tissue, unfairly, and even falsely, attributed to the remedies, set in, and induce the various effects. But neither has it been possible, in all cases, to ascertain the real and

existing condition of the tissue, before using the injections. Ricord farther declares, that he has found the judicious use of injections to afford the most prompt and favourable results; and his experience warrants the inference, that the more speedy the cure, the less the chance of organic changes of tissue in the urethra, and which he has always found to prevail in a ratio proportioned to the duration of the gonorrhœal disease.

There is matter intimately connected with this subject, and which, from circumstances of recent and, I will say, painful occurrence, it would be almost unpardonable in me to pass over in silence:—I allude to discharges from the urethra, involving suspicions affecting both the character and the chastity of persons above all suspicion. Discharges of a purulent nature, strongly resembling that from gonorrhœa, occasionally arise from ordinary inflammation of the mucous lining of the urethra; nor are such altogether of such rare occurrence. I am frequently applied to by persons suffering from purulent discharges from the urethra, and which look upon them as gonorrhœal, although, in certain instances, such an origin is almost morally impossible, notwithstanding the circumstances may lead to the most serious and lamentable results. I fear not a few chaste and virtuous women have been the victims of misapprehension and foul suspicion under such

circumstances, and rendered wretched, their characters blasted, and all their prospects destroyed.

When the reputation of a virtuous female is thus at stake, it is the bounden duty of the practitioner to pause, to reflect, and maturely to weigh the consequences, before he pronounce the awful doom. The responsibility of the practitioner is the most solemn and awful that can possibly be imposed, exceeded only by that in which the question involves life or death. We may remember, that not long since, an unfounded and calumnious imputation in high life was productive of the most painful consequences, and it is to be hoped also of the bitterest remorse. In such a condition of circumstances, let us not be rash or inconsiderate; and, for the unfortunate victim of suspicion, while yet balancing on the pivot of her destiny, for her, I say, let not our hearts be cold, or our tongues be wordless.

I have been carried away, as it were, by this train of reflection, in consequence of a very recent occurrence, the particulars of which will be found in the following detail:—

CASE.—A gentleman called upon me, stating that he had been recommended to me, though, till then, a perfect stranger, by a mutual friend. He stated that he was induced to apply in consequence of having, for the

first time, on the 2d of February last, observed some yellow-coloured stains upon his linen. He took no further notice for a day or so, but finding these appearances increase rather than diminish, he examined his urethra, and found that there was a discharge of a yellowish, thick, purulent-looking fluid, which was easily pressed out from the urethra. Under these circumstances, he consulted a medical gentleman, who, after having made the usual inquiries, immediately pronounced the disorder *gonorrhœa*; and directed copaiba and the other remedies usually employed in such cases. But as I have been since informed, he felt by no means content, and he suffered much from anxiety, in consequence of which, at the solicitation of the friend before alluded to, he consulted me.

I examined carefully into the matter, but more particularly the urethral discharge, by means of the microscope, and upon due deliberation, felt quite warranted in dissenting from the correctness of the opinion previously given. I stated that I looked upon the discharge as originating in something of a very different nature from a gonorrhœal taint. The gentleman appeared more surprised than satisfied with this statement, and expressed a wish that his professional attendant and myself should meet in consultation, as it was matter of serious moment to him. This being agreed to, and an

interview arranged, we met; upon which occasion a very minute microscopical examination of the discharge was made, and the particulars of the case thoroughly investigated and fully discussed; the result of which was a conviction on our parts, and a conjoint declaration of our unanimous opinion, that the discharge was *not* gonorrhœal.

Notwithstanding, however, the patient still seemed doubtful and dissatisfied, and consequently proposed that the state of his wife's health* should be ascertained; declaring that he was placed in the greatest possible perplexity, as, whatever the nature of his disorder, he was satisfied that it could not be derived from any illicit source. His lady, whose feelings and distress of mind (for the parties occupied a high position in society, and moved in the most fashionable circles) may be more easily imagined than portrayed, at the unfounded imputation, evinced not only the utmost willingness, but the most ardent desire that her innocence should be satisfactorily established, and her reputation rescued from aspersion and unjust suspicion. I need hardly say that the result was perfectly satisfactory, and the injured lady was at length fully, and most justly, re-established in her husband's confidence, love, esteem, and respect.

* This was the first I heard of his being a married man.

I have introduced the above detail to show how guarded we should be, when our opinion is sought under such circumstances; and if regularly educated medical practitioners are liable to fall into error and commit mistakes, how little reliance ought to be placed upon the capabilities or opinions of those, whose knowledge and whose character entitle them to neither our confidence or our respect. I make these comments because I know of one instance, in particular, in which a great deal of misery and wretchedness were entailed upon a most virtuous and respectable lady, by the impudent and unfounded dogmas of an arrant quack. I shall now, therefore, for the present quit this subject, intending shortly to offer some observations upon the use of the microscope as a means of facilitating the diagnosis, and discriminating the syphilitic and gonorrhœal virus from the various inflammatory and chronic discharges from the urethra, with which they may be and are so constantly confounded.

In the foregoing pages it has been shown that impotency is often connected with syphilis, in the relation of cause and effect. It may, however, be a question, how much ought to be attributed to the disease, and how much to the treatment adopted. If the treatment be inert or tardy in its effects; if, further, it tend, to inveterate and establish the syphilitic irritation in the

system, impotency may be looked for, as at least an occasional result.

Mercury is the mineral upon which the greatest reliance has been placed for the cure of syphilis, in both its primary and secondary forms. Now, although I have not particularly noticed mercury as one among the causes of impotency, I believe it would not be difficult to show that such an effect could be most clearly and satisfactorily traced to the influence of this mineral upon the system. What can be more pernicious than repeated salivations? If, then, the general mode of treating syphilis be so far objectionable, may it not be worth enquiring whether there be any other method equally efficacious but less objectionable? Carmichael, in his clinical lectures, observes, that not many years since, patients affected with a complaint thus easily cured were subjected to a six or eight weeks' salivation. He also states that there are many inveterate mercurialists who close their eyes against all modern discovery, and who still rigidly adhere to a barbarous practice. The same author also further states, that as soon as an ulcer secreting a morbid poison, capable of infecting the constitution, has been healed, danger of contamination to the system is, to a very great extent reduced, if not altogether averted.

While the ulcer is yet in its primary stage, excavated,

and secreting a mere lymph, he endeavours instantly to destroy the whole surface by the free application of an *escharotic*. When the eschar separated and was thrown off, Carmichael states that he had invariably the satisfaction to find that he had to deal with a simple sore, instead of a poisonous ulcer. The application is to be continued so long as the ulcer retains an excavated appearance, and continues to secrete a thin and poisonous matter. When the discharge assumes the purulent character, and the surface of the ulcer seems smooth, raised, and fungous, he gives the *Argentum Nitratum* a decided preference over all other preparations; a solution of which, in the proportion of from one grain to three of the salt to one ounce of distilled water, he considers best adapted for the purpose. At the same time, aperient medicines, with small doses of the *Antimonium Tartarizatum* are given. Under this plan, the ulcers are found to heal in a period of time so short, as will hardly be credited by those who trust to mercury alone for the cure, and with a far less proportion of secondary symptoms than falls to the lot of the decided mercurialists. As I consider this a decidedly superior mode, I cannot but feel highly gratified that it has been, within the last eighteen months, introduced into one of the largest and best regulated of the metropolitan hospitals.

M. Ricord asserts, whatever form a chancre may

assume at its commencement, it ought to be treated by the abortive method, *for there is no authentic instance of secondary symptoms succeeding to ulcers which had been destroyed within the first five days after infection.* Therefore, if during the first five or six days after an illicit or impure connexion, a pustule of any kind should appear upon any part of the organ exposed to infection, no matter what its nature may be, and independent of and without investigating the exact diagnostic characters it may present, it should be ruptured, and its ground well cauterised; for no bad results can follow, even though we be mistaken, and that the pustule should prove to have arisen from eczema or harpes. But when the disease has its seat in the lymphatic system, these means are not applicable; and in such cases we must have recourse to means similar to those which are employed for destroying buboes.

But if, as often happens from our being consulted too late, or the plan just explained not extending sufficiently deep, that there is great difficulty in destroying at once the whole of the infected part, and in consequence, chancre is developed; under these circumstances, whatever may have been the duration, whatever the nature or the form under which it may have commenced, it ought to be destroyed as promptly and as effectually as its extent and locality will permit. These are rules which cannot be

too strongly inculcated nor too forcibly urged, and against which prejudice is doomed to contend in vain. Daily observation and mature experience will ultimately carry with them the conviction.

From the researches of Ricord, it appears that in all the cases of constitutional syphilis which came under his observation, it was found that the chancres lasted, or, in other words, had never disappeared under a period of ten, twelve, or fourteen days; and in the majority, the period was prolonged to three, four, five, or even six weeks.

No one can doubt for a moment that, for absorption or constitutional infection, certain conditions are essential. It is also readily conceivable that these conditions may be absent at one period, and yet set in or supervene at any interval. If, then, we review these facts in relation to chancre, we must admit that, although the conditions essential to the possibility of general infection may be wanting at first, yet that they may set in at any moment. Hence it follows, that so long as chancres are permitted to exist, these conditions may set in; and the chancre exerting its poisonous agency, the system may become tainted. It clearly follows, therefore, that that treatment, by which the local cause of constitutional infection can be most quickly arrested or suppressed, must prove the most effectual preventative to secondary symptoms. What, then, can be better adapted

to this purpose than the speedy cure of the syphilitic ulcer, and the immediate arrest of the poisonous secretion? The *Argentum Nitratum* is well adapted for this purpose.

But when the chancre is seated in those tissues, which may be said, from their vascularity, to be engorged with blood; or when it occupies a considerable extent of surface, the *Argenti Nitras* does not act with sufficient energy, and, as observed by Ricord, imitating the effect of gangrene, which reduces chancre, when it attacks it, to the state of a simple lesion. In these circumstances I have witnessed the best results by a paste—*Pâte de Vieme*—used by M. Ricord, in the wards of the *Hôpital des Veneriens*, at Paris. Its use, however, requires great caution and strict attention, to prevent its acting upon too great an extent of surface, as it should be strictly confined to the diseased part; or, at most, to but a very small portion of the healthy tissue beyond. Chancres, to which these means are inapplicable, or which, notwithstanding their employment, still retain their specific character, will require another mode of proceeding.

Although, as a general principle, a too frequent dressing of ulcers or wounds acts injuriously, by disturbing the healing process, but more especially that of cicatrization, still it does not hold good in the case of chancres, inasmuch as the secretion, from the ulcerated

surface, becomes an active and continued agent in exciting the disease. Hence it follows, that chancres are an exception to this rule, and that they should be dressed several times a day to remove the morbid secretion, before it can do mischief. We must also take care that pus is not harboured by the crusts which form on cutaneous chancres, as pus thus confined might contaminate the neighbouring parts.

While a chancre continues in a state of ulceration, cauterisation is to be applied so long as the ground under the eschars present the syphilitic characters. But when these have disappeared, and healthy action has commenced, the cautery must be suspended. Nor can the mind be too strongly impressed with these principles. If escharotics be continued when the granulations have become healthy; or discontinued, while the secretion still retains the syphilitic virulence and the poison accumulate: in the first case, the healing powers will be checked, and the patient's recovery greatly retarded; in the second, the poison will be absorbed, and successive contaminations may be the consequence. Thus, if the chancres continue indurated for two or three weeks, I have no hesitation in asserting, that nineteen out of every twenty patients will be attacked with secondary symptoms. To oversights of the above descriptions may be attributed phymosis, paraphymosis, and

various other consequences, not excepting even gangrene.

It was found at the Hôpital des Veneriens, that greasy matters were not suited to the treatment of chancre; and of unguents, the mercurial ointment was observed to prove the most injurious in its effects. Under its use the chancres increase in number, frequently become inflamed, coalesce, and thus extend themselves. If induration be absent, I find that similar objections apply to the use of black wash.

It has been already observed that it is unsafe to let the pus, secreted by a chancre, remain in contact with the chancrous surface; we should, therefore, endeavour to check or suppress the exudation of matter. Ricord, for the former purpose, used merely dry lint, which acts by absorbing the matter. I, however, prefer a small piece of sponge, moistened, but well squeezed out. Ricord further states, that he found the most speedy and best results from the use of the "aromatic wine of the French Pharmacopœia."* The chancre should be well washed with the wine, but without any violence, and a small piece of sponge, moistened with the same, but well squeezed, should be laid over it. The sponge absorbs any matter as it is secreted, and removes it from the

* Ricord, p. 262.

surface. There are a few other manipulations, which, if observed and adopted, this wine will be found, not only the best curative, but also one of the very best prophylactics.

The advantages of this plan are, that it prevents, or at least is not followed by that succession of chancres which mostly attend the other modes of treatment. The bottom of the chancre becomes altered and its secretion checked; and, according to Ricord, the wine acts as a very energetic astringent on the contiguous parts, rendering them unsusceptible of inoculation.*

If any pain be produced, it may be allayed or mitigated by the application of ten or twelve grains of opium in an ounce of water, applied externally; the proportion of the narcotic to be increased or diminished according to circumstances. If the secretion from the chancre continue profuse, a spirituous or vinous decoction or infusion of tan will almost invariably check it.

We must enjoin the strictest continence (which is always the safest plan) if the seat of the cicatrices continue indurated, as the rupture of these may be followed by relapse; and against which, nothing but absolute continence offers any thing like a perfect security. Such appear to be the general principles upon which chancres

* Ubi supra.

should be treated, but there are certain characters which either prove a malignant virulence in the chancreous matter; or, in consequence of peculiarity of temperament, the chancre during its progress manifests a degree of irritability or malignancy, which renders its management much more difficult and much more complicated. The most usual seat of chancre is the angle between the glans and frænum, the frænum itself, the glans, or the prepuce. In this locality, herpetic and other erosions, from neglect of cleanliness or other causes, often appear, and if a chancre so situated be free from indurated walls or base, it may be confounded with erosions of the character above mentioned. In such circumstances, a mere superficial cauterization, and a single fold of fine linen between the prepuce and glans, will be quite sufficient for their cure; but if more refractory, the plan already detailed will be required.

PHAGEDÆNIC CHANCRES.—These present under two principal forms, which may be distinguished as the *indolent* and the *irritable*. When a patient is affected with the former, is much debilitated, and the system greatly reduced, generous diet and stimulants are not only the appropriate means, but become absolutely indispensable. Opium, under such circumstances, is our sheet anchor; for it not only subdues pain, allaying irrita-

tion, and soothing the system, but acts as a diffusible stimulant. But, notwithstanding the best directed measures, chancres of this sort continue obstinate and resist all the usual modes of treatment. It has repeatedly occurred to me, to see all the external applications before mentioned, aided by the various means suited to relieve visceral disease, and to improve the general health, fail. I am indebted, however, to my friend Dr. Venables, for a most valuable formula, the efficacy of which he had so many opportunities of testing during his services in the Peninsular Campaigns with the army under the Duke of Wellington. It is prepared by dissolving from ten grains to a scruple of the Hydrargyri Nitrico-Oxydum in concentrated nitric acid, and cautiously adding distilled water, but so as not to cause the precipitation of any part of the oxide. Should any be thrown down, it should be redissolved by the addition of a few drops of the concentrated acid. It is applied to the chancre with a camel-hair pencil ; the application may require to be repeated three or four times. My colleague, Dr. Venables, assures me that he found this both in his practice at the Ordnance Hospitals in England and on the Continent, the most valuable escharotic, completely destroying the diseased, and exposing the healthy surface, after two or three applications. My own trials fully corroborate these encomiums, as I always

found three or four applications sufficient to completely arrest the diseased action, and produce a healthy sore; and this, even when the sore was spreading with fearful rapidity, and carrying destruction and sloughing wherever it extended.

BUBOES.—Whether buboe be a primary or secondary form of syphilis, is a question as yet hardly decided. Be this as it may, there is one circumstance which ought to be attended to, and that is their suppuration. They, as well as chancres, secrete a poisonous pus, by the absorption of which the system may be contaminated. Matter, therefore, should not be allowed to remain or to accumulate in them. Hence, they should be opened early, and evacuated. This is attended with two advantages: first, we diminish the chance of constitutional contamination by absorption; secondly, we limit, or probably altogether prevent the extensive sloughing of the skin and integuments, which almost always follows the lengthened confinement of pus in a buboe. When the external skin becomes inflamed, and has assumed a purple or dark livid hue, extensive sloughing, and most unseemly cicatrices, are the almost inevitable consequences. The buboe having been opened, we should endeavour to correct the condition and improve the secretions from its cavity. The mode of effecting these

purposes may be easily collected from what has been already advanced.

When buboes occur in leuco-phlegmatic habits, or are complicated with scrofula in any of its various forms, we must attend to the general health, administer tonics, and correct the effects of disease by due attention to diet, air, and exercise. When the system has been much exhausted by a profuse and lengthened suppuration, no remedy has appeared to me more beneficial, or more effectual in restoring tone and energy, than the Proto-iodide of Iron and the *Ferr. Citras cum Quina*.

FINIS.

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